

ISSUE No. 61.
JANUARY, 1969



protect and enjoy

LATROBE VALLEY NATURALIST

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BY POST AS A PERIODICAL.

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LATROBE VALLEY FIELD NATURALISTS CLUB.YALLOURN.VICTORIA.

Dear Fellow Field Naturalists,

Excursion to Dargo High Plains - Australia Day long-weekend. Members should refer to previous issues of the Naturalist for the excursion and meeting arrangements for January. The January (Saturday - Monday) 'camp-out' has become a feature of the Club's outings. This year it has been arranged for the Dargo High Plains; and should be well worth while and provide interest for every member of the Club. Any further details should be sought from the Excursion Secretary, Miss N.T. Rossiter, 68 Railway Avenue, Yallourn, who may be contacted by telephone.

The Queensland scene, whether it be north of the tropic of Capricorn, on it or south of it, provides something a great deal different to that of southern Australia, and members such as Mr. Ern Homann are attracted back to it time and time again. The article which follows reflects: some of his observations made on a recent trip to Southern Queensland.

BROOKVALE PARK. - TOOWOOMBA, QUEENSLAND: by Ern Homann.

Mr. Lance Cockburn, the first generation of his family to farm on the rich soil of the Darling Downs in Southern Queensland, is a farmer President of the Toowoomba Field Naturalists Club, his main interests being in conservation and the growing of native plants. Mr. Cockburn told me that the land had given him and his family so much that he decided to give something in return. So, in 1961, he set out to establish a garden of native plants. As a site for the gardens he selected a gravelly ridge, close to his home, with a northerly aspect overlooking the fertile valleys of the Darling Downs and the distant Bunya Mountains. There followed years of work as plants were raised and the garden set out.

The well drained ridge suited many plants, particularly the Northern Australian natives - those from the arid west and from the dry tropics of the inland north. The garden progressed and was opened to the public in 1967. On our visit in late August acacias were predominant and, as over 200 species of acacias are in the gardens, this is understandable. One acacia, (I think *A. denticulosa*) had an interesting history. Never common in its habitat in Western Australia, it was thought to be extinct. Some seeds were discovered in herbarium specimens and a few of these were sent to selected growers. Mr. Cockburn was successful in raising one plant and we had the privilege of seeing it flowering.

(Continued over ...)

(Brookvale Prk - Cont'd).

Eucalypts, particularly the dwarf varieties, are a feature, but with these Mr. Cockburn has trouble with his semi-tame koalas which have a wide range of food trees - eucalypts - and so his trees suffer. Eventually Mr. Cockburn hopes to extend the garden to an adjoining area using the existing trees and other tall-growing trees with them. He hopes then to confine the koalas to this area.

I have mentioned the acacias and eucalypts in the Park, but there is a tremendous variety of plants there - from Kangaroo Paws to Blue Bells.

The Park is well worth a visit. To reach it travel from Toowoomba westerly on the Warrego Highway. Some five miles beyond Oakley a sign points the way to the Brookvale Park. It is open from 10 a. until sundown on all days of the year except Christmas Day. At weekends and on holidays a conducted tour is taken at 2.30 p.m., and Mr. Cockburn's commentary is most interesting. There is a kiosk at the Park where light refreshments may be had, colour slides, seeds and plants may be bought, or a picnic enjoyed in the spacious grounds.

----- Ern Homann -----

QUICK WORK ! by Ern Homann.

After a pair of Goldfinches had reared two broods in our plum tree, they decided to shift to an apple tree. It was easy to see that nest-building was going on as one bird always perched on the highest branch, keeping up a continual twitter. On December 24th. there was the skeleton of a nest and this was then filled in and continued on Christmas Day and finally finished on Boxing Day.

There was an egg in the nest on the 27th. December but no more eggs have appeared and I think that the birds have deserted the nest. Perhaps I watched it too closely.

Goldfinches, although introduced birds, seem not to be as noxious as most other introductions.

----- Ern Homann -----

LIST OF BIRDS SEEN AT STONEY CREEK, COWARR.

The list of birds seen at Stoney Creek, Cowarr, was sent in by Mr. F. Jones for inclusion in the November issue. Unfortunately, it was not received in time, but will lose nothing in value to members by a belated publication in the January issue.

(Continued over

BIRDS SEEN AT STONEY CREEK, near COWARR, 1964 - 1968.by F.E. Jones.

White-faced Heron.
Whistling Eagle.
Brown Goshawk.
Wedge-tailed Eagle.
Peregrine Falcon.
Common Bronzewing.
Brush Bronzwing.
Wonga Pigeon.
Little Lorikeet.
Gang gang.
White Cockatoo.
King Parrot.
Crimson Rosella.
Pallid Cuckoo.
Fantailed Cuckoo.
Golden Bronze Cuckoo.
Horsfield Bronze-cuckoo.
Powerful Owl.
Boobook Owl.
Tawny Frogmouth.
White-throated Nightjar.
Spine-tailed Swift.
Azure Kingfisher.
Kookaburra.
Sacred Kingfisher.
Lyrebird.
Welcome Swallow.
Black-faced Cuckoo-shrike.
Cicada-bird.
Ground Thrush.
Spotted Quail-thrush.
Superb Bluw Wren.
Striated Thornbill.
Yellow-tailed Thornbill.
Brown Thornbill.
White-browed Scrub-wren.
Jacky Winter.
Scarlet Robin.
Flame Robin.
Rose Robin.

Yellow Robin.
Grey Fantail.
Rufous Fantail.
Wagtail.
Satin Flycatcher.
Golden Whistler.
Rufous Whistler.
Olive Whistler.
Grey Shrike-thrush.
Eastern Shrike-tit.
Whipbird.
Orange-winged Sittella.
White-throated Trec-creeper.
Mistletoe Bird.
Eastern Striated Pardalote.
Eastern Silvereye.
Lewin Honey-eater.
Yellow-faced Honey-eater.
White-eared Honey-eater.
Yellow-tufted Honey-eater.
White-naped Honey-eater.
Brown-headed Honey-eater.
Eastern Spinebill.
Crescent Honey-eater.
New Holland Honey-eater (Yellow-winged)
Red Wattle-bird.
Diamond Firetail.
Red-browed Finch.
Olive-backed Oriole.
White-winged Chough.
Dusky Wood-swallow.
Pied Currawong.
Grey Currawong.
Grey Butcher-bird.
White-backed Magpie.
Satin Bower-bird.
Raven.
Starling.
House Sparrow.
Black-bird.
Goldfinch.

THE BIG TREES OF FERNSHAW: Contributed by Mrs. E.Lyndon.

These are extracts from a book, "Oceana, or England & Her Colonies," written about Victoria in 1835, by James Anthony Froude, a famous English writer. Froude, one of a party that included the then Governor of Victoria, Sir Henry Loch, was being entertained at St. Hubert's Vineyard at Yarra Glen, where a Swiss, Mr. Castella was successfully growing fine wines in the Yarra Valley. A picnic in the hills was organised so that visitors might see the Mountain Ash forests. Froude vividly describes the trees they saw that day in February, with the temperature at 98° in the shade.

"We were to be shown the giant trees at Fernshaw, the largest as yet known to exist anywhere. higher by 100' than the great conifers of the Yosemite Valley in California. They were twenty miles off in a mountain glen near the rise of the Yarra. Unique as these trees are they ought to be preserved; but the soil that nourishes them is tempting from its fertility, and they are being rapidly destroyed. The Government makes laws about them, but in a democracy people do as they please. Custom and inclination rule and laws are paper. A notch is cut a yard above the ground, the bark is stripped off, circulation of the sap is arrested and the tree dies. The branches stand for a few years bare and ghostlike, then it rots and falls. Sometimes the forest is wilfully fired and one sees hundreds of trees, even when there is still life left, scorched and blackened on one side ... The Eucalyptus is a fast grower and can be restored hereafter when the loss of foliage begins, as it will, to affect the climate ... In the Fernshaw mountains, however, no great impression has been made yet ... but the genius of destruction is in the air.

One drives as through the aisles of an immeasurable cathedral, the boughs joining overhead to form a roof, supported on great columns which rise behind the other all round. There is no undergrowth save treeferns, fine in their way for some were thirty feet high, but looking like mere green mushrooms among the giant stems. Three hundred and fifty to four hundred feet is their average height, one was measured which reached four hundred and sixty. In the position in which they stand they are protected from all possible winds. To this and to the soil they owe their enormous development. I myself measured rudely the girth of one that stood near the road. At the height of my shoulder it was forty five feet round. I was glad to have visited the place. It was something to have seen the biggest trees in the world and to be able in California, to affect disdain of the Yosemite ... "

AND A NOTE ON DARLIMURLA: by Mrs. Lyndon. On our way home with the F.N.C.V. party at Narracan Falls on New Years Day, we detoured through Darlimurla. There were many small flowers blooming in the dam bush - Fringed Lilies, Yellow Goodenias, Blue Grass-lily, Blue-bells,

(Darlimurla Notes Cont'd).

and white Everlastings. In the bush along Sargent's Road, going south from the Fauna Group campsite (which is now completely devastated), there were Duck Orchids. In a shallow sandpit on the crest of the rise to the left were many fine specimens of *Calceana major*, evidently liking the broken ground. I call this forest road Lycopodium Lane, for it leads on over the hill to a goodly patch of the Bushy Clubmoss in another man-made excavation just above the creek. The area here is as yet untouched by the tree farmers. A few bright blue *Lobelia gibbosa* showed up in damp spots and still further south among the growing pines there were magnificent patches of this lovely fleur-de-lis by the roadside.

----- E. Lyndon -----

NED'S CORNER: A stop on the way to Wilpena Pound. by Norm.
H. Simpson.

It was in the dry conditions of May 1967 that we were on our way to Wilpena Pound, in the South Australian Flinders Ranges. We drifted off the track about 40 miles westward of Mildura at a spot on the Murray called Ned's Corner, and after a few miles of dry salt marsh we camped on the Murray bank, situated on one of the Kidman stations. (Ned's Corner is on a quiet reach of the river where at most times the only noise to be heard was from the occasional boats with outboard motors carrying hopeful fishermen up or down stream. At night and in the morning could be heard the numerous splashings of water birds landing or taking off from the water.

My most uncommon sighting was what I believe was the common or garden Slater. It was like those I had seen elsewhere except for a roughness to the touch, and there were many thousands of them. They had started their progress from some source not to be seen, in a vast army several yards in width, from among the lignum bushes, and finally marched in a narrower line to the edge of the river, where they disappeared in some form of couch grass. The length of the journey would have been at least 22 yards, and the size of the individuals varied from about $\frac{1}{8}$ of an inch to about $\frac{1}{2}$ an inch. I may be mistaken in believing them to be Slaters and, if so, I would like someone to correct me.

I formed the conclusion that the Slaters (or whatever they were) were heading for the water owing to the generally dry conditions which prevailed at the time. However, as we left soon after having observed so far, it was not possible to know just what their object in moving en masse might have been.

----- Norm H. Simpson -----
Warragul Field N.C.

THE BAW BAW FROG: by G.T. Scanlan.

I had hoped, on Monday the 30th. December 1968, in the company of members of the Field Naturalists Club of Victoria, to find some evidence of the Baw Baw Frog on the higher levels of the Baw Baw Plateau. Disappointingly, the bus carrying members of the Club was not able to travel beyond the old mill site, and only one small car load of them made as far as the ski huts. Two of us, accompanied by two small visitors, and travelling separately, did make the summit but did not find any evidence of the frog.

The interest in the frog known as the Baw Baw Frog arose from reading, and rereading over a period of time, a paper by Dr. Littlejohn and an article by Mr. A.A. Martin, both zoologists on the staff of the University of Melbourne. Dr. M.J. Littlejohn contributed a paper entitled 'The Zoology of the High Plains' to the Proceedings of the Royal Society of Victoria, (Vol. 75, Part 2, 12th. Nov. 1962) in which he referred to this frog - Philoria frosti - and Mr. A.A. Martin an article to the 'Natural History Magazine' entitled 'The Biology of Tadpoles' in which he also included reference to the same species of frog.

The Baw Baw Frog is of particular interest to Gippsland naturalists in that it is believed by Dr. Littlejohn to be restricted to the Baw Baw Plateau area at an altitude of above 4,000 feet.

Much of what is known of Philoria frosti has been obtained from the studies of Dr. Littlejohn, who stated in his paper that it had been reported by Baldwin Spencer in 1901. Dr. Littlejohn found that it is distinctive among frogs in that (apart from its restricted habitat) in breeding along the small creeks among the Sphagnum moss on the plateau, it lays a relatively small number of eggs in the damp moss, and the tadpoles remain in the egg mass during growth and miss out on the free-living larval stage common to most other species. This is not possible, so he believes, by the far greater amount of egg yolk in the Philoria frosti eggs, which enables the embryo to develop to the tadpole stage in the egg mass, and so miss out on facing the many additional hazards to existence faced by other species.

Mr. Martin explained that the meaning of the term 'Amphibia', the class to which frogs belong, is 'leading a double life', and frogs do spend the first part of their lives as aquatic, gill-breathing organisms, and after a period in this condition a transformation takes place in which the small creatures develop legs and change almost completely into four-legged, land-dwelling animals for the rest of their lives, usually returning to the water only to breed.

This was probably the time of the year when it could be expected to find some evidence of their existence on the Plateau, but although a beautiful small green frog with darker aboriginal-motif-like markings on the back, together with other varieties were seen, and many free-swimming tadpoles, in the pools high in the moss of the mountain, no evidence was seen to indicate (to an amateur at least) the presence of the unique Baw Baw Frog. Perhaps this may provide a challenge to others ?

- JAN. 17
25/27 - Campout at Large High Plains
- FEB. 28 - General Meeting - Members Night
- MAR. 28 - Annual meeting followed by a general meeting at which Mr. Peterson will talk on National parks in Australia
- 29 - Excursion to Segawa road to study trees and shrubs - Leader - Mr. Auchterloni
- MAY 2 - General Meeting - Mr. Rex Wilson on the subject 'Lichens'
Excursion to be arranged with Mr. Wilson
- General Meeting - Mr. Bruce Fuhrer, subject 'Seaweeds'.
Excursion to Cape Paterson area - Leader Mr. Fuhrer
- General Meeting - Mr. Jack Hyett, subject - 'Nature' (tentative)
- Excursion to be arranged with Mr. Hyett
- General Meeting - Mr. Duncan, subject - 'Fossils'
Excursion to 'Ten Mile Creek' area - Leader Mr. Duncan
- General Meeting - Mr. Bryant, subject - 'Astronomy'
- Excursion to Rockville Sanctuary (has)
- General Meeting - Miss Galbraith, subject 'Wildflowers'
- Excursion to Collierville Fun
- General Meeting - Mrs. Pauline Rielly, subject 'Birds' - 'ug'
- Excursion to Stony Creek area
- General Meeting - Mr. Peter Turner, subject 'Freshwater Algae'
- Excursion to be arranged with Mr. Turner

Addition to Programme, 1969

- Mar. 3 - Excursion to Walkerville - Leader Mrs. Brewster

Latrobe Valley Naturalist.

Latrobe Valley Field Naturalists Club.

Honorary Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

Meetings: General meetings are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions: Usually on the Saturday or Sunday after the general meeting, as shown on the programme for the year.

Warragul Field Naturalists Club.

Honorary Secretary: Mr. Jack Brooks, Box No. 120, Warragul.

Meetings: Are held on the third Friday of each month at the Albert Street, Warragul, State School, beginning at 8 p.m.

Excursions: Are held as arranged, usually two weeks after the monthly general meeting.

Traralgon Field Naturalists Club.

Honorary Secretary: Dr. D.W. Collins, 4 Charles Street, Traralgon.

Meetings: Are held on the second Friday of each month at the Grey Street, Traralgon State School, starting at 7.30 p.m.

Excursions: These are arranged usually for the Sunday following the general meeting.

Each Club welcomes visitors to their meetings and excursions.

The Latrobe Valley Naturalist: Is the official publication of the Latrobe Valley Field Naturalists Club. Contributions on any aspect or branch of natural history are invited from any persons interested and should be addressed to the Honorary Editor, (Mr) G.T. Scanlan, P.O. Box 95, Yallourn, 3838.

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LATROBE VALLEY FIELD NATURALISTS CLUB.

Date

NOMINATION FORM FOR OFFICE.

The Secretary,
179 Lloyd Street,
MOE. VICt.

I wish to nominate
of for the position of President/
Junior Vice-President/Treasurer of the Club.

Proposer

Seconder

I hereby agree to accept nomination for the above office in the Club.

LATROBE VALLEY FIELD NATURALISTS CLUB.

YALLOURN.

VICTORIA.

Dear Fellow Field Naturalists,

General Meeting Friday February 28th. This meeting will take the form of a members' night - when it is hoped to show some of the more interesting slides on some aspect of natural history that members have taken during the past year. The co-ordinator for the meeting is Mr. Tom Moretti, and members wishing to participate should contact him, preferably before the meeting, to let him know the subject matter of the slides to be submitted for showing, and with a short commentary of their contents. Tom's address is 130 Princes Street, Traralgon, and his telephone number Traralgon 72423.

Excursion 1st. March 1969. Excursion Secretary Miss Nancy Rossiter has submitted the following regarding the next Club excursion.

Saturday 1st. March. On this day the excursion will be led by Mrs. Brewster to the Walkerville area. Members are asked to meet at the intersection of the Dunbalk - Meeniyah Road with the South Gippsland Highway at 10 a.m..

From the meeting place the route will be via Buffalo and along the Walkerville South Road and Bear Gully Access Road to Bear Gully where some interesting geological formations will be inspected and, on the way there, some heathland flora. From Bear Gully it is planned to walk northward along the coast for about a mile and then return to Bear Gully.

Those members who have been on excursions led by the Brewster family will be looking forward to a very interesting and possibly adventurous expedition !

----- N.T. Rossitor -----

Meeting of the Executive Committee at the home of Miss Jean Galbraith Wednesday 5th. February:

Heathlands for proposed reservation: Members discussed a proposal to have reserved an area of heathland in an area in the vicinity of Dutson Downs to Traralgon South in the Rosedale Shire. This land is unalienated and members were to meet and inspect the area on Sunday 16th. February.

Office of Editor of the 'Naturalist': The present Editor submitted his resignation to the Executive and the position has been accepted by Senior Vice-President Mr. Jim Peterson.

(Continued over ...)

(Executive Notes Cont'd).

It is hoped that contributions will not only continue but that they will increase. One of the ever present problems of publishing this little paper has been the uncertainty of having sufficient material to make publishing worthwhile. At the meeting of the executive thanks were expressed to the present editor for the 62 issues that have been perpetrated so far. However, as far as he, the writer, is concerned, it has been largely a labour of love and those to whom appreciation should be expressed are those who have contributed so much of interest and value to members.

Contributions should be addressed, in the future, to Mr. Jim Peterson, 43 Barry Street, Morwell.

End of the 1968/1969 financial year: The Club year ends on the 28th. February and this means that annual subscriptions, for the year 1969/1970 become due once again.

It also heralds the election of officers to places falling vacant through effluxion of time, and nominations will be required to be submitted no later than the 28th. February for the offices of President, Junior Vice-President and Treasurer. Nomination forms are included with this issue, and when completed, should be addressed to the Secretary, Mr. S. Belgraver, 179 Lloyd Street, Mor, or handed to him at the meeting. Any financial member of the Club is entitled to be nominated for any one of the offices and the nomination form should be signed by two members of the Club as proposer and seconder.

Going Walkabout: Mrs. Lorna Badfield, an active worker for this and other Clubs and organisations over a number of years, is to go to New Zealand for about six months. This is to be in the nature of a working holiday and one of Lorna's stated ambitions is to visit Kidnappers Point and there see the White Hannets which nest in their thousands at that point. This will be her second attempt to do so, and it is hoped that she is successful in making it.

Members at the Executive Meeting wished her well.

Next Meeting of the Executive: Will be held at the home of Mr. & Mrs. Jim Peterson at 43 Barry Street, Morwell, on Wednesday 5th. March at 7.30 p.m. It is repeated that any member of the Club is welcome to attend meetings of the Executive.

(Ed)

FIELD NATURALISTS CLUB OF VICTORIA VISIT - FINAL DAY.: A
report by R.N. (Bob) Auchterlonie.

Ideal summer weather greeted our F.N.C.V. visitors on New Years Day for the last day of their Gippsland visit. Proceeding from Morwell up the Thorpdale Road, a stop was made at the Fossil-bearing area where the road crosses the Ten Mile Creek. The visitors were shown a representative collection of specimens of the creamy-grey sandstone containing the fossil imprints of leaves of about a dozen different trees or plants which had grown here who knows how many million years ago. They were shown where these had been collected, and by kind permission of the land owner, Mr. Ron Graham, entered into a diligent search for specimens. Some twenty years ago, these were to be had in abundance on the surface, but over recent years must have been carried off by collectors, and it is now necessary to do a little quarrying or rock-splitting to get specimens. Some of the visitors had come equipped for this with hammers, chisels etc., and after an hour or so spent on the task, quite a good number of leaf imprints saw the light of day for the first time in many millions of years.

The S.E.C. has tentative plans for the construction of a reservoir here, to store water for future power stations. If and when these plans come to fruition, the whole of this fossil-bearing area will be submerged. The sandstone will most likely be used in the construction and facing of the dam wall, and fossil specimens will then be brought to light in quantity. Any collectors able to be present when work is in progress should be able to reap a rich reward in gathering specimens.

The next stop was a short distance further on, at Bird's Gully Reserve, a small area set aside by the A.S.M. for retention in its natural state. Mountain Grey Gum and Varnish Acacia are prominent; also noted were Messmate, Silver Wattle, Blackwood, Hazel, Panax, Prickly Currant, Muttonwood, Clematis and Wonga Vine. Ground cover included drifts of Maidenhair Fern, while bordering the small creek were ferns and rushes in great variety. Two legumes were noted and may be said to be the poor relations of much more illustrious plants. These are Twining Glycine (*G. clandestina*), with its purple and lavender flowers, and Slender Tick-fool (*Desmodium varians*), with its clover-like leaves and small pink flowers. The genus *Glycine* contains another species, *G. soja*, better known as the Soy Bean, which supplies protein to the diet of millions of people in Asia, as well as having industrial uses in Japan and America. Another species, *G. javanica*, is currently undergoing trial as a tropical legume for pastures in Northern Australia, while several other species of *Desmodium* are showing great promise in this same field. Our two humble plants are hardly destined for such heights !

A little further on we stopped to examine a clump of Hyacinth Orchids, some half dozen hefty stems 2 feet high, but these were just in the bud stage. We also noted the desperate struggle for existence

(Continued over ...)

(F.N.C.V. Visit Cont'd).

going on between the planted pines and the native messmate, varnish acacia, and wire grass too dense to penetrate.

We then made our way to the Narracan Falls, where lunch was taken in pleasant surroundings, to the accompanying sound of falling water. Although pipe lines of 12 and 15 inch diameter take off just above the falls for the Moe water supply, there was still a good volume of water making the direct plunge of 20 feet into the surging, foaming pool below. It might be supposed that a waterfall of this type would present an impassable barrier to young eels travelling up stream from their breeding places in the ocean. Such is not the case however, as eels are frequently caught by anglers upstream from the falls. At times the olvers may be observed squirming up the slippery perpendicular rocks at the sides, a feat calling for much perseverance on their part, as many must be repeatedly swept back.

As our visitors were anxious to be on their way homeward, an early departure was made from the falls, and we set out on a scenic drive through the picturesque countryside of Thorpdale, with its green pastures, potato fields and man-made lakes, on through Childers with its plantations of towering pines and eucalypts. Christmas Bush and Cassinia bloomed by the roadside, and many inviting glades tempted one to linger, but our visitors had firmly said "no stops".

Proceeding westward, we saw at first glimpses, then a wide, open panorama of the main Gippsland valley spread out far below us, with Baw Baw in the distance. Finally came the run down into Yarragon, where our visitors, after thanking us, bade farewell, and took their departure via the Princes Highway.

----- Bob Auchterlonie -----

PHOTOSYNTHESIS , TRANSPIRATION AND RESPIRATION: by Jean Halbraith.

Recently the son of a neighbour, who had to do a supplementary examination in Botany came to me for help. I found that the three things that he did not know were Inflorescence, Photosynthesis, and Plant Respiration. The first of these I demonstrated in the garden, and I wrote out definitions, or explanations of the other two terms for him to study at home. I am glad to say that he passed the examination. However, I had copies of the notes and thought that if the editorial cupboard was bare they might serve a purpose and help to fill a few inches of Naturalist space. ... I enclose them herewith ...

(Continued over ...)

(Botanical terms Cont'd)Photosynthesis.

Photo is a Greek word for light and Synthesis is Greek for 'joining together'. Therefore Photosynthesis is 'light joining together' the name of the process by which light joins together mineral-impregnated water (absorbed by the roots) and carbon dioxide (absorbed by leaves as air) to form carbohydrates (starch and sugar) for plant growth. The waste product of this photosynthesis is oxygen (the part of the air not used) which is released through the stomata (breathing pores) in the leaf surfaces.

It is in the vegetable kingdom the equivalent of digestion in the animal kingdom, but is much more complicated than digestion, and so far has not been duplicated successfully, or even fully understood, though research into its nature still goes on.

It is the only way in which minerals can be converted into organic material and is therefore an essential link between man (and all animals) and the earth. We cannot digest earth - we depend on plants, by photosynthesis to do this, and we live on them, or on animals nourished by them. While the whole process of photosynthesis is not yet known we do know :-

- a) that it is not one but a succession of processes;
- b) that the first of these processes is impossible without light which does the work about one second after absorption and makes the succeeding processes (which may not need light) possible.
- c) that chlorophyll is the agent of photosynthesis in the leaf. It is stored in granules of protoplasm called chloroplasts coloured green by its presence.
- d) that chlorophyll absorbs mainly the red and violet rays of the spectrum, and these are the rays used in photosynthesis.

Briefly then, photosynthesis is the 'digestion' by light acting through chloroplasts (which absorb the rays necessary for its working) of carbon dioxide and dissolved minerals to form carbohydrates (sugar and starch) for plant growth.

Plant Respiration and Transpiration:

Every plant leaf, having formed sugar by photosynthesis, uses some of this sugar for tissue-building (nutrition), oxidizes some of this sugar to obtain energy for growth and, if any remains, stores the remainder as starch.

The waste products when sugar is oxidized are 'breathed out' through the leaf pores (stomata). They are CO₂ (carbon dioxide) and water. Oxidization requires oxygen to combine with sugar and release its potential energy, and this oxygen has to be absorbed as air through the same leaf pores which breathe out the waste products. This absorption of air and

(Botanical terms Cont'd)

Breathing out of the waste CO_2 is called Respiration - just as our breathing in of air and breathing out of the same waste products through our noses is called respiration.

Plant respiration is much slower than animal respiration because plants move much less than animals, as their movement is mainly that of germination and growth.

The release of water through the stomata is not only the release of water vapour from absorbed air, but also of excess water absorbed by the roots (and sometimes of water that is not excess if the plant is exposed to too much heat and wind). This release of water is called Transpiration and is controlled by the opening and closing of stomata according to the water needs of the plant.

This control is automatic, for leaf cells full of water are firm (like inflated balloons) holding the stomata open, but with loss of water they become limp (like collapsing balloons) almost closing the stomata, and so cutting down water loss.

----- Jean Galbraith -----

BIRD VISITORS AT LEONGATHA: by Ellen Lyndon.

This has been a delightfully cool Christmas, too cool perhaps for seaside campers, but bringing the blessing of good rains to many drought-stricken districts further east.

Snow on the high country at this time of the year is not so very unusual - bad weather can strike there at any season, without warning. It brings to our minds another white Christmas, that of 1937, when a heavy snowfall and severe blizzard conditions raged for three whole days around tiny Cope Hut, a mere dot on the bleak immensity of the Bogong High Plains.

++ This year found us, for good reasons, confined to home, enjoying as well the most unwelcome gift of severe summer colds, at a time usually spent (of late years at least) in the pleasant company of bird watchers in far places. The park across the road was planted many years ago with a wide selection of conifers and deciduous trees from other lands, beautiful at all seasons but particularly so now in the flush of early summer. Bird visitors are many. Some are permanent residents who nest in the damp woodlands for short periods. Their voices often betray their presence and send us scurrying for the glasses. This mornings high pitched whistle was soon tracked to a Rufous Fantail flirting from tree and swooping for insects. A rare visitor this, to the haunts of its plainer cousin the Grey Fantail.

Just before the rains came a small party of strange parrots

(Bird Visitors at Leongatha Cont'd).

blew in on the cool change, screeching shrill 'throats' as they flow high and fast among the very tips of the trees. So flighty was this flock that it was some time before I was able to identify them with certainty as the Little Lorrikeets (*Glossopsitta pusilla*). These little grass-green bobtailed fellows (they are only six inches in length) are nomads that follow the blossoming of the gum trees. The attraction here is *Eucalyptus leucoxylon*, an isolated tree down among the dustbins beyond the school park. A lovely tree of medium size, it is flushed just now with new growth of yellow-green tips above massed white blossom tinged with crimson. Occasionally a crimson autumn leaf adds a bright streak of colour to the depths of the mature foliage. Against this background the plump short legged 'keets run along the smooth branches like mice, or clamber nimbly among the outer blossoms, often hanging head downward as they feed, exposing a flush of orange pink feathers along the nape of the neck. Neither Hill nor Cayley do justice to their bright beauty of plumage.

Their underparts are bright yellow green. The wings, with some black in them, and the back, a much darker green. The whole face, cheeks, throat and forehead patch, is crimson, surrounding the small bill which appears to be of a distinct violet tinge. They feed silently and intently for the most part and except for the movement in the leaves are practically invisible. A sharp little whistle from one bird or other is often the only indication of their presence in the tree.

As I pass through the park on my way to the flowering gum the Red Wattlebird keeps a sharp eye on me and just as I settle down to enjoy the lorrikeets one of these big brutes will land noisily in the tree and put all the 'keets to screeching flight. They take a perverse pleasure in doing this, often singling out one of the little parrots for a frantic game of chasey. They may only take refuge in the cypress hedge and a lookout will cling to the highest tip, watching, after the manner of the white cockatoos, ready to give the all clear when the bully is gone.

Although apparently considered common, I do not recall having seen the Little Lorrikeets in this district before. They fly high and they feed high, perhaps they are often overlooked, but their voices are unmistakable as they flash about high over the town gardens. May they long remain with us !

----- Ellen Lyndon -----

++ (A typographical misdemeanour: About midway in the third paragraph on the previous page the editor has omitted somewords which detract from the writer's intention. This should read: "Bird visitors are many. Some are permanent residents who nest there and others are merely travellers who rest in the damp woodlands for short periods" Ed.)

NOTES FROM MY DIARY - 1968.: by M. Hague, Cowarr.

Feb. 1968. I knew there were lyrebirds in the vicinity but was pleasantly surprised to find they were so close to cleared land.

1967-68 has been the driest period on record, Stoncy Creek has only seepage pools and undergrowth in the bush is tinder dry. At 11.30 a.m. I wandered up the creek bed - all was hot, still and quiet. I sat on a log and suddenly saw two brown forms gliding behind the boulders. I glimpsed two male lyrebirds with sweeping tails making my way for a drink.

Two weeks later.- at 10.30 a.m.. Welcome light rain has fallen and it was if the lyrebird was giving his thanks in beautiful clear liquid notes. Of course, I had to climb the hill to try and catch sight of him. That is all I had as he ran away.

April 20th. 11.30 a.m.. Sunny, light wind, walking upstream there was more water to be seen. Glancing to my left in sparse foliage and rocks I saw a hen lyrebird trotting and hopping. I watched her for some minutes and was surprised that she did not vanish. However a male bird was giving his clucking call on the opposite side and not only did she obey his call of "come over here" but as she ran across the stones to him another hen flew across. So now I know that there are two pairs.

April 22nd. 6.45a.m. Decided to go to Stoncy Creek early - there was a wind, the sun had not penetrated to the creek bed. I went quietly to Lyrebird bend and the male bird was there alright - I heard the familiar _____ wheock call many times.

Anzac Day. I know that he was near by the call at -- about 3.30 p.m. when he tuned up I listened to his entrancing song for 20 minutes.

May 14th. Toongabbie. Andrew and I went for a walk to the deserted garden on Williamson's at Toongabbie. While enjoying the beautiful scene, never dreaming there were lyrebirds there, I again heard the _____ wheock - note from the scrub. Exploring I found the soft ground scratched like a ploughed field and we heard his small song of melody from the Manuka, perhaps he was a young bird not yet in full song.

May 25th. Toongabbie. Saw the birds scratching for food and heard calls. Walking through scrub disturbed their feeding and a hen flew into a tree where I clearly saw her as she kept quite still - I saw the slate blue tones in her feathers, and her soil encrusted beak. She flew earthwards then and vanished. Walking back I was startled by a big bird with trailing tail fluttering out of another tree. So here was another pair!

(Continued over ...)

(Notes from My Diary - Cont'd).

June. Visited Toongabbie several times, each time seeing glimpses of the brown birds and heard calls. The best time is before noon ...

July 4th. 2.20 p.m.. Carmel and I went to Stony Creek and while we stayed in the car Mr. Lyre gave us fifteen minutes at least of his repertoire - all the bush songs interspersed with his own clear notes. This was a free concert illustrating the saying that: "The best things in life are free."

Coming home by way of Cowarr Weir we saw an Azure Kingfisher sitting quietly on a wooden pile. For a while we saw a glorious picture as he sat - a splash of colour with a background of smooth water as a mirror and a border of golden yellow late autumn leaf colours.

----- Mary Hague -----

AN OBITUARY OF AN EMINENT NATURALIST: by V.N. Jernakov.

Member of the Latrobe Valley Field Naturalists Club Mr. V.N. Jernakov wrote for the Quarterly Journal of the Taiwan Museum, which is situated in Taipei, Taiwan, China, an obituary of another eminent Russian Naturalist - Taras Petrovich Gordeev. The obituary appeared in Nos. 1 & 2, June 1968 of Vol. XXI of the Journal.

Mr. Gordeev died in Belgium at the age^{of 91}, and Mr. Jernakov's tribute is to one with whom he was associated in a close and extensive manner, for of the 40 works listed as being the work of his subject, he co-operated in the preparation, over a period of years, of no less than 15. Those works were published originally in a variety of languages, Russian, Chinese and Japanese, and reported a variety of original and other research work in some apparently (very often) primitive parts of Russia and north-east China.

The obituary has been reprinted, in English, and the writer has kindly presented to the editor a copy. Mr. Jernakov states, among other things that "T.P. Gordeev, together with the writer, made several expeditions and excursions in North-east China. Also he participated in excavations of a skeleton of the fossil rhinoceros near Fuliactzi Station in 1956 and of a fossil tree in the region of Changfatun in 1959 ... " He climbed volcanoes in Japan, was one of the first to study soil and plant communities in North East China and was an adviser to the Harbin Branch of Continental Scientific Research Institute. Most of his papers related to the study of soils and plant communities and it was in these fields that Mr. Jernakov was also implicated.

Mr. Gordeev and his associates were the pioneers of several branches of natural history, and the reader of this obituary, 'reading between the lines', can guess at the tremendous achievements over a life spent so close to nature, and the satisfaction that it must have given to the object of the writer.

(Ed)

"IT'S A LOVELY DAY, LET'S GO OUT AND KILL SOMETHING" An Extract from 'In the Australian Tropics' contributed by Mrs. E. Lyndon.

The following is an extract from 'In the Australian Tropics' by Alfred Searcy, at one time Collector of Customs at Port Darwin. Searcy lived in tropical north Australia from 1882 until 1896 and in 1907 published a book of his adventures there. He was one of the great white hunters of Queen Victoria's day, and his idea of amusement seems to have been: "It's a lovely day, let's go out and kill something."

He describes one camp in the jungle swamps: "We sometimes put in a night in the jungle, doing our shooting in the early morn, and be on our way home before the heat of the day. Lying in my net (he records the mosquitoes as terrible) how I used to revel in the sounds of birdlife coming up from the feeding grounds; the talk of the 'old man' goose (magpie geese), the swish of the whistling duck and the cries of many other wildfowl. It made me long for daybreak so that I could rouse out and kill something. If it was in the jungle we camped, at the first peep of dawn I was in the depths of it, when everything was wet and dripping with dew. The deep church-like silence, the dim mysterious light, all had a wonderful charm for me. In a short time how evrything would change, for the shooting would commence and the jungle become at once alive. Besides ducks and geese we occasionally got a shot at a native companion (brolga) or a jabaroo (jabiru) a turkey or an ibis.

At certain seasons of the year there were many beautiful small birds, which are trapped in thousands and exported to different parts of the world. At one time we used to get some splendid parrot shooting on a small island known as Shell Island, on the other side of Darwin Harbour, where they camped. We used to post ourselves just before sundown under the trees near the mangroves, and wait the coming of the birds. As soon as they happened along the shooting commenced and continued until it was too dark to see them. Lanterns were then produced and a search made for the bodies among the mangrove roots. The largest take I heard of was two hundred and fifty. Suddenly the birds ceased to turn up at the island. We put the cause down to the fact that several of the crew of a pearling schooner who had died of beri-beri were buried there. !!! "

(The oxclamation marks are mine. (E.L.))

----- Ellen Lyndon -----

Latrobe Valley Naturalist.Latrobe Valley Field Naturalists Club.

- Honorary Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moc.
- Meetings: General meetings are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.
- Excursions: Usually on the Saturday or Sunday after the general meeting, as shown on the programme for the year.
-

Warragul Field Naturalists Club.

- Honorary Secretary: Mr. Jack Brooks, Box No. 120, Warragul.
- Meetings: Are held on the third Friday of each month at the Albert Street, Warragul, State School, beginning at 8 p.m.
- Excursions: Are held as arranged, usually two weeks after the monthly general meeting.
-

Traralgon Field Naturalists Club.

- Honorary Secretary: Dr. D.W. Collins, 4 Charles Street, Traralgon.
- Meetings: Are held on the second Friday of each month at the Grey Street, Traralgon State School, starting at 7.30 p.m.
- Excursions: These are arranged usually for the Sunday following the general meeting.
-

Each Club welcomes visitors to their meetings and excursions.

The Latrobe Valley Naturalist: Is the official publication of the Latrobe Valley Field Naturalists Club. Contributions on any aspect or branch of natural history are invited from any persons interested and should be addressed to the Honorary Editor, (Mr) G.T. Scanlan, P.O. Box 95, Yallourn, 3838.

ISSUE No. 63.

MARCH, 1969



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Dear Fellow Field Naturalists,

A Message from the President

Retirement of Mr. G.T. Scanlan. Some three years after the Latrobe Valley Field Naturalists' Club began, Mr. Scanlan offered to produce a Newsletter mainly to chronicle the doings, past and future of the Club. The Newsletter began as a single sheet but gradually grew to a far more ambitious publication, stabilising at an average issue size of ten pages. Many were the difficulties in the early stages and we suspect that Mr. Scanlan was, on many occasions, editor, typist, printer and delivery boy. One problem, the ready use of a duplicator, was solved by the generosity of Mr. R.N. Auchterlonie and the Club acquired its own duplicator.

With a change of name from News Letter to Latrobe Valley Naturalist and its registration with the postal authorities, the paper became firmly established, its reputation spreading among neighbouring clubs many of whose members subscribe to receive a copy of the magazine. The editor has been able to maintain a high standard of contributions ranging from those authoritative in their field to those - the most of us - who have something of interest to contribute.

George Scanlan has been the driving force behind all this and so it is with the greatest regret that we learn that the demands of his work would no longer permit him to remain Editor. Despite having to travel many miles during the last six months to do so, he has continued to bring out the magazine to the February issue.

The Club owes a deep debt of gratitude to George Scanlan for his untiring efforts in his editorial capacity, his encouragement of contributors and the high standard that the magazine has achieved. Members have learnt to look forward with anticipated pleasure to the receipt of the Naturalist each month and were never disappointed.

On behalf of the Club we thank you George Scanlan for a job well done.

Ern Homann

Annual Meeting will be held on Friday, March 28th, at the Yallourn State School. The President and Treasurer will present their annual reports. Elections will then be held for the positions of President, Vice President, Treasurer and Librarian, positions which will then be held for a further two-year period.

The General Meeting will follow at which time a talk illustrated by slides will be given by J.M. Peterson on the subject "National Parks".

Excursion - Saturday, March 29th. Our Excursion Secretary Miss Nancy Rossiter advises as follows:

The meeting place for the excursion will be at the Thorpdale swimming Pool at 10.00 a.m. or the Hallston Road Junction at 10.30 a.m.

Lunch will probably be taken at the waterfall on Sagasser Road.

Mr. Bob Auchterlonie, who will lead the excursion, which will be in search of subjects of botanical interest, has planned a route which passes through some of the most beautiful pastoral country to be seen anywhere.

Any members who need transport are reminded that this may be arranged by ringing Yallourn 5 2392 a few days before the excursion.

N.T. Rossiter

Report of Executive Meeting of March 5th. This meeting was held at the home of Mr. and Mrs. Peterson (Mr. Peterson not forgetting to let Mrs. Peterson know).

Rosedale South Reserve Investigation. This was carried out jointly by members of the Sale, Traralgon and Latrobe Valley Clubs. Discussion indicated that much more investigation work will need to be done in the future to complete this survey.

A.L.V.A. Tourist Committee Meeting. A report of this meeting was made by Mr. Homann where, at this meeting, a recommendation was made that the new Tourist Committee remain a part of A.L.V.A. and would be made up of one representative of each Municipality, one from each Municipal Tourist Committee plus four or five other members representing Latrobe Valley Organisations and businesses including one from the Central Gippsland National Trust.

(At a subsequent A.L.V.A. meeting the recommendation was adopted in principle. Our Club's delegate to A.L.V.A. stressed the need for a widening of the Committee to permit more Latrobe Valley organisations to participate. This was agreed to be necessary. Ed.)

Lecture to Newborough Scouts. Mr. Homann will give a talk on behalf of the Club to the Scouts, using slides loaned by members of the Club.

Order for Books. An order has been placed on the Commonwealth Serum Laboratories for twelve copies of J. Ross Garnet's new book "Venomous Australian Animals Dangerous to Man".

Members Badges. An order has been placed for 72 blanks of the new name badge plus tape. These will be made up by the Club on demand. Sale price will be 20 cents each.

Natural History Collections. The executive listened to an enthusiastic talk given by Mr. Bart Sterkenburg. He stressed the need to look for people with collections of natural history material and for us to endeavour to keep them within the district. He pointed out that these collections could be damaged due to neglect or destroyed because their inheritors do not appreciate their value.

It is the executives recommendation that all members keep an eye out for collections of natural history value - whether large or small. Any information should be passed on to Mr. Bart Sterkenburg, 21 Watsons Road, Moe.

Next Executive Meeting will be held at the home of Miss N.T. Rossiter, 72 Railway Avenue, Yallourn, at 7.30 p.m. on Tuesday, March 25th. Please note the change of night and that it will be held one week earlier than normal.

Annual Meeting of the Warragul Field Naturalist Club. Friday, March 21st, commencing at 8.00 p.m. After the annual election and general business Mr. and Mrs. O. Thompson will show slides and speak on "Some Aspects of Native Wild Flowers".

DARGO HIGH PLAINS CAMPOUT - A.N.A. WEEKEND - A report by Miss Nancy Rossiter.

For those who took part, the Dargo High Plains campout will be memorable for a variety of reasons - for a flat tyre, always somewhat of an adventure for the female sex; for others a tree across the road necessitating some expert axework; for yet another a near-fire in an open car-boot when a bottle of water concentrated the sun's rays on a rubber mat; and for all the vagrancies of the weather from driving rain and wind and brilliant sunshine, sparkling stars and frost; the sun on golden everlastings; the rosy haze of multitudes of trigger plants; magnificent views of near and distant mountains; cheerful companionship and cups of tea in a cattleman's hut at night before a blazing log fire; and the informative impromptu talk by Mrs. Taylor on the progress of the Nature Conservation Survey of the National Park's Association when everyone learnt a good deal more about activities of this association.

Between thirty and forty field naturalists were in the camp at the south end of Lankey's Plain coming from six different clubs - the National Parks Association, the Field Naturalist Club of Victoria, the Bairnsdale, Warragul, Frankston and Latrobe Valley Field Naturalist Clubs.

The predominating species flowering were:

Oxylobium alpestra - mountain shaggy pea making bright patches of orange everywhere; Helichrysum acuminata - alpine everlasting with the starry flowered; Helipterum antheroides - chamomile sunray making little gardens of white and gold; Stylidium graminifolium - grass trigger plant already mentioned as an unforgettable sight and the Eucalyptus pauciflora - snow gum covered with blossom. Two not so common species were Prostanthera cuneata - alpine mint-bush the lovely delicate mauve flowers of which were at the peak of their blooming and Pimelea linguistria - tall rice-flower, the large creamy heads were once called "Kosciusko rose" by stockmen because of a resemblance to the banksia rose. On Mount Hotham the striking Aciphylla glacialis - alpine celery was found in flower. This plant has prickly leaves which have a superficial resemblance to a palm and white compound umbellate flowers born on long stems. In spite of the sharpness of the pointed leaves it is much liked by grazing cattle and in consequence became almost extinct. Protection of its habitat encouraged recovery and now even where there is grazing it may be found in inaccessible rock crevices. Also seen above 6,000 feet on Hotham were the silvery cushions of Ewartia nubigena or Edelweiss but with only a few of the tiny papery white daisy flowers which cover the cushions when in full bloom.

(Cont'd.)

Discussion kept erupting on identification, mainly on bluebell species and trigger plants. These discussions always add interest and sometimes confusion. The latter will be dispelled no doubt when the Herbarium gives the casting vote on *Stylidium graminifolium* and *Stylidium lineare*.

This is the briefest outline of a very full three days. May there be many more combined club weekends with the sharing of knowledge and discussion of problems.

N.T. Rossiter

DARGO HIGH PLAINS CAMPOUT - Two interesting finds written by Miss Jean Galbraith.

One of the rarities of our Dargo weekend was *Wahlenbergia densifolia* a fairy-like slender plant with a clear blue bell and small smooth whitish-green spreading leaves crowded near the base of the stem. It is known in Victoria only from Lankey's Plain and Nunniong Plateau. One or two were found on Lankey's Plain, by diligent searchers (though this diligent searcher found none). However, we saw a blue haze of thousands above the road near Kiandra. The Kosciusko area is their other known habitat.

Mr. Brooks of Warragul Field Naturalist Club has the credit for the rarest fern seen on the Dargo campout. This is the Brittle Bladder-fern (*Cystopteris filix-fragilis*) found under southward-facing rocks under the waterfall below the camp. It is described in the *Willis Handbook* as "localised and rare in Victoria where known only from wet shaded rock-crevices in the alps and sub-alps". Its name draws attention to a characteristic feature - the whitish-green bladder-like indusium or spore-cover over the round spore clusters near the tips of the blunt lobes of its delicate widely spaced pinnae (or leaflets).

Jean Galbraith

WATER THAT STARTED A FIRE - An interesting experience and a warning to all written by Mr. Bart Sterkenburg.

It was a very good thought to tell members of the Latrobe Valley Field Naturalist Club, who were interested, to join the excursion to the Dargo High Plains, to take plenty of water. Past Dargo there is usually not much water especially for drinking. Well, it turned out to be a different story.

My wife and I left for Stratford on the Friday night, where we stayed at our son's place. On Saturday morning we filled a five gallon plastic tank and also some glass flagons with water from the tap. "Straight from Glenmaggie Weir", my son announced. "The water is untreated and is tested every fortnight, very clear and of good taste". Also in the boot we had placed a spare tank of petrol. The weather was very warm. Up to Dargo everything went all right. Past Dargo the steep climbing started. We decided, after a long haul in first gear, to give the too light a motor a rest. When I opened the bonnet I found the top radiator hose had blown and we had lost a lot of water. With the help of a Field Nats friend the hose was patched up with tape and the trip continued. Heavy wind and rain started. Soon we found a group from the camp searching for flowers. Everyone was wrapped up in rain clothes. It had been raining heavily the night before and it practically hadn't stopped.

(Cont'd.)

The campsite was about eight miles further on. The rain was pouring and we had to wait nearly an hour and a half before we could pitch the tents. At 6 o'clock some cars arrived from Bairnsdale but could not pitch tents, so they continued on to Hotham Chalet. The track we came into the campsite on had changed into a fast running creek. We'd seldom experienced so heavy a rain and we collected buckets of the purest water off the roof of our tent. Thunder and lightning flashed through the bush.

At about ten o'clock the weather cleared, the moon and stars appeared and, believe it or not, the next morning at five o'clock, on coming out of the tent, there was ice on the cars and a white frost on the ground. At nine o'clock bright sunshine, clear fresh air and everything so clean after the rain. Opening the boot it was very humorous to see the water tank and the clear glass flagons of Glenmaggie water side by side.

I started renewing the hose under the bonnet and after about seven minutes I noticed a strong smell of burning rubber. My first thought was that perhaps I had shorted the battery with a screwdriver but I couldn't find anything wrong, until I walked around the car and saw smoke coming out of the boot. The sun shining on a glass flagon filled with water, which had acted as a lens, had set the rubber floor alight. The rubber had got soft and had started bubbling and smoking - only four inches from our spare petrol tank. If I hadn't been so quick our car could have gone up in smoke and nobody would ever have expected that the Glenmaggie water would have been the cause of the fire. Later on we put the flagon in the grass to see the effect. The grass was damp but within ten minutes the grass had dried and had started smoking.

I write this true story especially for the members of our Club but also for everyone who is camping or enjoying outdoor life, to warn you be extra careful with glass exposed to the sunlight; a fire is so easily started and usually so hard to stop.

On Sunday we went to the top of Mount Hotham and even had the opportunity of walking in the last patches of snow. Monday again had frost on the grass. Everyone started packing up. We probably stopped too long in a field covered with golden and white everlastings. Our car was practically the last to leave the High Plains.

Before reaching Dargo one of our tyres developed a big bulge, so the spare tyre had to be fitted. This blew out after about three miles, so the bulging tyre had to be fitted again and we had to drive 50 miles on this very unroadworthy tyre.

All the experiences of this excursion couldn't dampen our enthusiasm for the Dargo High Plains and their beautiful surrounding mountains. We will go back there, perhaps again with Glenmaggie water, but more experienced and better equipped.

Bart Sterkenburg

(Bart's last sentences typify the attitude of members at this campout. Their determination not to let the weather spoil the weekend, without doubt, helped to make this one of our best campouts. Ed.)

(Cont'd.)

SUPPLEMENTARY LIST OF DARGO HIGH PLAINS PLANTS compiled by Miss Jean Galbraith.

This list is additional to the list published in the Latrobe Valley Naturalist of June, 1968.

They were listed during the Club Excursion, Australia Day Weekend and were found between the open woodland south of the old hotel site and the north end of Lankey's Plain.

s	<i>Cystopteris felix-fragilis</i>	Brittle bladder-fern
	<i>Blechnum penna-marina</i>	Alpine water-fern (cool rock-cleft near waterfall)
p	<i>Bulbine bulbosa</i>	Bulbine lily
w	<i>Arthropodium milleflorum</i>	Pale vanilla lily
sw	<i>Hypoxis hygrometrica</i>	Golden weather-glass (not nearly as hairy as usual)
p	<i>Prasophyllum alpinum</i>	Alpine leek-orchid
p	<i>Prasophyllum suttonii</i>	Mauve leek-orchid
w	<i>Chilogottis gunnii</i>	Common bird-orchid
sw	<i>Pterostylis decurva</i>	Summer greenhood
sw	<i>Pterostylis alpina</i>	Alpine greenhood
sw	<i>Hakea microcarpa</i>	Small-fruit hakea
s	<i>Claytonia australasica</i>	White burslane
p	<i>Scleranthus biflorus</i>	Twin-flower knawel (the June record of <i>S. diander</i> may have referred to this species as it was not flowering then)
p	<i>Ranunculus millanii</i>	Dwarf buttercup
s	<i>Ranunculus pirpinellifolius</i>	Bog buttercup
p	<i>Cardamine debilis</i>	Mountain bitter-cress
all	<i>Acaena anserinifolia</i>	Bidgee-widgee
p	<i>Drosera arcturi</i>	Alpine sundew
sw	<i>Bursaria spinosa</i>	Sweet bursaria
w	<i>Rubus parvifolius</i>	Small-leaf bramble
w	<i>Oxylobium alpestre</i>	Mountain shaggy-pea
p	<i>Mirbelia oxyloboides</i>	Mountain mirbelia
w	<i>Bossiaea foliosa</i>	Leafy bossiaea
sw	<i>Geraneum potentillifolium</i>	Forest geraneum
sw	<i>Glycine latrobeana</i>	Purple glycine
p	<i>Oxalis corniculatus</i>	Creeping wood-sorrel
p	<i>Linum marginale</i>	Wild flax
w	<i>Phebalium phyllifolium</i>	Mountain phebalium
pw	<i>Pseudanthus ovalifolius</i>	Oval-leaf pseudanthus
w	<i>Poranthera microphylla</i>	Small poranthera
w	<i>Stackhousia monagyna</i>	Candles
p	<i>Stackhousia pulvinaris</i>	Alpine stackhousia
w	<i>Discaria australis</i>	Austral anchor-plant
p	<i>Hypericum japonicum?</i>	Matted St. John's wort (no flowers)
p	<i>Hypericum gramineum</i>	Small St. John's wort
all	<i>Viola betonicifolia</i>	Purple violet
sw	<i>Viola hederacea</i>	Ivy-leaf violet
w	<i>Hymenanthera angustifolia</i>	Shrubby violet-bush (a spiny "espalier" over rocks)

(Cont'd.)

p	<i>Pimelea alpina</i>	Alpine riceflower
p	<i>Pimelea</i> sp ?	
sw	<i>Eucalyptus rubida</i>	Candlebark
s	<i>Baeckia gunniana</i>	Mountain heath-myrtle
s	<i>Epilobium pallidiflorum</i>	Showy willow-herb
w	<i>Epilobium confertifolium</i>	Mountain willow-herb
p	<i>Epilobium curtisiae</i>	Creeping willow-herb
p	<i>Haloragis serpyllifolia</i>	Flat raspwort
w	<i>Hydrocotyle hirta</i>	Hairy pennywort
p	<i>Hydrocotyle sibthorpiana</i>	Stalked pennywort (probably no flowers or fruits)
p	<i>Oreomyrrhis eriopoda</i>	Andean carraway
sw?	<i>Acrotriche serrulata</i>	Honeypots (not certain if locality here - could have been farther north)
p	<i>Gentianella diemensis</i>	Not flowering - too early
sw	<i>Dichondra repens</i>	Kidneyweed
s	<i>Myosotis australis</i>	Austral forgetmenot
w	<i>Ajuga australis</i>	Bugle
p	<i>Gratiola nana</i>	Alpine brooklime
w	<i>Veronica derwentia</i>	Derwent speedwell
w	<i>Veronica perfoliata</i>	Digger's speedwell
p	<i>Veronica gracilis</i>	Slender speedwell
s	<i>Veronica peregrina</i> ?	Wandering speedwell
w	<i>Euphrasia collina</i>	Purple eyebright
w	<i>Euphrasia scabra</i>	Yellow eyebright (but not yellow as a rule)
p	<i>Asperula gunni</i>	Mountain woodruff
p	<i>Asperula euryphylla</i>	Broad-leaf woodruff
p	<i>Pratia pedunculata</i>	Trailing pratia
p	<i>Pratia concolor</i>	Poison pratia
p	<i>Pratia puberula</i>	Alpine pratia
w	<i>Wahlenbergia consimilis</i>	Bluebell
p	<i>Wahlenbergia gloriosa</i>	Royal bluebell
sp	<i>Wahlenbergia densifolia</i>	Fragile bluebell
s	<i>Wahlenbergia ceracea</i>	Waxy bluebell
p	<i>Stylidium lineare</i>	Narrow-leaf trigger plant
w	<i>Olearia phlogopappa</i>	
	var. <i>flavescens</i>	Buff daisy-bush
w	<i>Vittadinia australis</i>	New holland daisy
p	<i>Erigeron pappochroma</i>	Violet fleabane
w	<i>Lagenophora huegelii</i>	Coarse bottle-daisy
p	<i>Brachycome diversifolia</i>	Tall daisy
p	<i>Brachycome decipiens</i>	Field daisy
p	<i>Brachycome scapiformis</i>	Coarse daisy
p	<i>Brachycome scapigera</i>	Tufted daisy
p	<i>Cotula alpina</i>	Alpine cotula
p	<i>Podolepis robusta</i>	Mountain podolepis
p	<i>Leptorrhynchus squamatus</i>	Scaly buttons
p	<i>Helichrysum acuminatum</i>	Everlasting
sw	<i>Helichrysum semipapposum</i>	Clustered everlasting
wp	<i>Helichrysum hookeri</i>	Mountain shrub everlasting
p	<i>Helichrysum rutidolepis</i>	Pale everlasting
p	<i>Helipterum anthemoides</i>	Camomile sunray

p	Gnaphalium indutum	Tiny cudweed
p	Gnaphalium argentifolium	Silver cudweed
w	Senecio laetus	Variable groundsel
p	Senecio brachyglossus	Slender groundsel
w	Senecio quadridentatus	Cotton fireweed
p	Microseris scapigera	Yam

The area covered in this list falls naturally into four regions which have been indicated by letters preceding the names.

p... The open plain (Lankey's Plain and a southward extension). This is open snowgrass plain, with many ungrassed depressions where snow has lain and where small (usually matlike) herbs thrive. There are no shrubs except an occasional very dwarf specimen. Herbs (mainly rosette plants and annuals) grow amongst the grass and it is interesting to notice that often the bare depressions are colonised by one species only (as Pratia puberula in one and Pratia concolor in another, Ranunculus millanii, Gratiola nana and Epilobium tasmanicum in others, with a dwarf matted form of Oxalis corniculatus with nearly stalkless flowers sprinkling other with gold). It has been heavily grazed in the past and little sphagnum remains - probably a result of trampling.

s ... Stream, referring to that part of the stream which drains Lankey's Plain and which is rather to the east of the Plain, where it becomes steep and rocky.

w ... Open snowgum woodland surrounding the Plain, rather higher than it and more rocky.

sw... Southern woodland - south of the old hotel site, at a rather lower altitude than the other regions mentioned, less rocky, and very damp where it borders the other small stream.

This list is still very incomplete both as to species and distribution as common species were not always collected, nor were collections of any one species made from all places where it was seen. I have therefore had to depend on my memory for these, and where doubtful have omitted names even when fairly sure they have been seen. Species listed last June are not repeated here unless there was doubt about them then (as indicated in the earlier list).

Jean Galbraith

A TRIP TO MOUNT BAW BAW - report of another Alpine trip made by Mrs. N. and Mr. J. Brooks from our Warragul Club.

On Saturday the 8th February, after studying weather reports, we decided that conditions were favourable for a trip to Mount Baw Baw.

The pangs of hunger caused us to stop at the East Tanjil River where we saw the tree geobung, Persea arborea, covered in lemon wax-like flowers, and found several green berries strewn on the ground.

(Cont'd.)

On Baw Baw, the leek orchid, Prasophyllum suttonii, was the first flower to catch our eye, and it grew bigger and more colourful as we proceeded along the snow poles east of the ski-huts.

The trigger plants this year are flowering in profusion varying from a pure white specimen to shades of magenta. Other flowers noted were the alpine leek orchids, a cinnamon bell, shy lillies, creeping fan flowers, vilets, silver daisies, alpine groundsels, alpine podolepis, Callistemon sieberi, eyebright and the daisy bushes, Olearia phlogopappa.

In spite of the sun disappearing behind the clouds, the veined sun-orchids were the highlight of the trip, and would have been more spectacular on a sunny day. We found several blooms which appeared quite pink, and also two groups of the white form of Thelymitra venosa. The blue veining inside the white petals made it most attractive to gaze upon, reminding one of the gentian which was now closed up for the day.

Finally, a reminder to all who visit the alpine country - do not ignore the ants' nests, they (the ants) don't really sting, but just make their presence felt when one is absorbed in focusing on the minute details of the mountain wild flowers.

Nancy and Jack Brooks

ARTICLES FOR THE MAGAZINE

Your new editor and editorial staff will make every effort to maintain the high standard as has been set by our retired editor Mr. George Scanlan. We also depend upon your continued support with contributions of articles, both large and small.

Editor

* * * * *

LATROBE VALLEY FIELD NATURALISTS CLUB

Honorary Secretary Mr. S. Belgraver, 179 Lloyd Street, Moe.

Meetings General meetings are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions Usually on the Saturday or Sunday after the general meeting, as shown on the programme for the year.

WARRAGUL FIELD NATURALISTS CLUB

Honorary Secretary Mr. Jack Brooks, Box No.20, Warragul.

Meetings Held on the third Friday of each month at the Albert Street State School, Warragul, beginning at 8.00 p.m.

Excursions Are held as arranged, usually two weeks after the monthly general meeting.

TRARALGON FIELD NATURALISTS CLUB

Honorary Secretary Dr. D.W. Collins, 4 Charles Street, Traralgon.

Meetings Are held on the second Friday of each month at the Grey Street State School, Traralgon, starting at 7.30 p.m.

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Each Club welcomes visitors to meetings and excursions.

The Latrobe Valley Naturalist

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ISSUE No. 64.

APRIL, 1969



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LATROBE VALLEY NATURALIST

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LATROBE VALLEY FIELD NATURALISTS CLUB.

YALLOURN. VICTORIA.

Dear Fellow Field Naturalists,

A Message from the President.

A Tribute to Mr. E. McElroy. Mr. Ted McElroy is a foundation member of the Latrobe Valley Field Naturalists Club and could even claim to be the foundation member for he was treasurer of the Morwell Horticultural Society when this society took the initiative in calling the meeting which founded our Club.

He was the initial Treasurer of the L.V.F.N.C. and remained so until late last year when indifferent health compelled him to resign. During more than eight years as Treasurer he has seen the Club grow from very small beginnings to the strong position it occupies today. Early days are difficult for a new club, particularly on the financial side in the struggle for the club to get on its feet. During these critical years, it was Ted McElroy's hand that guided the Club through its difficulties to its present sound financial position.

The Club owes much to the friendly personality of Ted McElroy, his unfailing curtesy and his great concern for the welfare of the Club and to him it extends its sincerest thanks.

Ern Homann.

General Meeting will be held on Friday, May 2nd, at the Yallourn State School. Please note that the meeting is one week later than normal owing to the Anzac Day holiday.

Guest speaker will be Mr Rex Filsen and his subject will be "Lichens". Mr Filsen is an authority on this subject being in charge of the lichen collection of the Melbourne Herbarium. He is currently working on this collection which has had very little done to it since the days of Baron von Mueller. Mr Filsen is the author of "Mosses and Lichen of Mac Robertson Land" compiled after a long stay in that land. Mr Filsen will lead an excursion on the following day in search of lichens.

Excursion - Saturday, May 3rd. will be to the South Cascade area of the Baw Baws. The meeting place will be at Parkers Corner near Erica at 10.00am.

Annual Meeting - March 28th.

Presidents Report - Copies of this report were distributed by the retiring President, Mr. E. Homann, further copies are still available.

Treasurer's Report - was given by acting Treasurer, Mr. E. McElroy. Details of this report are as follows:-

Latrobe Valley Field Naturalists' Club.Statement of cash receipts and payments for year ended 28th Feb. 1969.Receipts:

To Balance Cash at Bank		214.72
" Bank Interest.	6.66	
" Photoflora.	60.00	
" Members' Subscriptions	134.70	
" Sale of Books.	180.63	
" Car Stickers	<u>44.00</u>	425.29
		<u>640.71</u>

Payments:

By Subscriptions:-

F.N.C.V.	7.00		
Natural Resources League.	2.00		
National Parks Ass'n	4.20		
Wildlife Preservation Soc	5.00		
Aust. Conservation Foundn	5.00		
Advance L.V.Ass'n	<u>10.00</u>	33.20	
" Photoflora.	44.85		
" Books.	159.08		
" Material for Naturalist.	164.82		
" Car Stickers.	4.00		
" Insurance.	2.93		
" Advertising.	1.40		
" Petty Cash Disbursements	<u>22.00</u>	399.08	432.28
" Balance at Bank 28/2/69.			<u>208.43</u>
			<u>\$640.71</u>

To be Noted - The above statement is a summary of the actual cash received and disbursed and does not take into account Income received in advance, such as Member's subscriptions; Accrued Income as at the end of the financial year; nor Accrued

(continued)

Annual Meeting - continued.

Expenditure, such as creditors as listed below. In addition to the balance of \$208.43 in the General Bank Account there was a balance in the Pondage Scheme Bank Account of \$34.74.

Sundry Creditors as at 28/2/69.

Publicity Officer (Mrs. Bon Thompson). Publicity expenses for the
period 23/2/68 to 3/3/69
5.56

Editor (Mr. G. T. Scanlan). Material for the Naturalist
Aug. 68 to Feb. 69
48.54 \$54.10

Annual Elections March 28th. Elections for the following vacant positions were held. These positions will be held for two years and were filled as follows:-

President ---- Mr. E. Homann. (re-elected).

Vice President -- Mr. F. Jones. (re-elected).

Treasurer ----- Mrs. L. Eadie.

Librarian ---- Miss B. Kemp.

Forest Fires - A subject which is very close to the hearts of all naturalists. Unfortunately, there is very little material available for naturalists to study. We are therefore very fortunate to have made available to us a copy of material prepared by Mr. A. Hodgson, Fire Research Officer, Division of Forest Protection, Forest Commission of Victoria. This was made available through Mr S. Butler, Divisional Forester, Traralgon.

FIRE IN THE FOREST - prepared by Mr. A. Hodgson.

The role of fire in the ecology of Eucalypt forests of south eastern Australia prior to colonisation by Europeans is not well understood. But there is plenty of evidence that fire has been a force in the forest environment for thousands of years. This can be inferred from a large number of formal ecological studies reported in scientific journals. Direct evidence comes from charcoal in river deposits, charred wood in the ground and historical records which describe the fires seen by early explorers. But perhaps one of the most remarkable pieces of evidence that fire has been a significant factor in forest

(continued)

Fire in the Forest - continued

ecology is the development of certain physiological features of the genus *Eucalyptus* which allow it to live with fire. These include

- (i) dormant buds on the trunk and branches which produce epicormic shoots and leaves if the crown is destroyed.
- (ii) lignotubers which produce new shoots when the stem is killed and,
- (iii) a thick heat resistant bark which protects the cambium.

These features are well developed in species that grow in a climate where fire is common. They are less well developed in species that grow in a climate where fire is rare. Mountain ash is an example of the latter. But even this species is ecologically adapted to fire. It fails to regenerate unless a good seedbed is prepared and neither nature nor man has ever had much success in providing a good seedbed without the aid of fire. Without fire this species is eventually replaced by other types of vegetation. A hot devastating fire kills a Mountain Ash forest but ensures its replacement by providing a receptive seedbed for the regeneration of a new crop. If any further evidence is needed to suggest that fire has been in the forest for thousands of years it is only necessary to reflect on the fact that each in south eastern Australia a hot dry climate cures a flammable forest fuel. Lightning and the hunting fires of aborigines made widespread fires a certainty in this environment.

Before colonisation occurred it seems likely that fire, wildlife, flora and the aborigines existed together in some sort of balance. This balance may not have been static nor need it have been beneficial to all the values concerned. This is history now and is only of interest to us today in so far as any lessons learned can be applied in the circumstances that exist today. These circumstances are quite different from those that existed before colonisation. In the first place the area of forested land over which wildlife and plant populations can move has been reduced. In other words, habitat has been restricted. The composition of the forest has been changed. The form and density of some tree species has been altered and some new species have been introduced. Also the demands of a modern society has created values that did not exist before colonisation. Clear water, recreation and straight trees are some of those new values.

The role of fire in this changed environment is quite different from the role it played prior to colonisation. It is perhaps impossible at our present stage of knowledge to present a complete and well balanced account of the effects of fire on all forest values. But a great deal is known and new facts are emerging almost daily as many fire ecology research projects develop. If forest land is to be managed effectively to produce the products that the community needs then these fire

(continued)

Fire in the Forest - continued

effects must be understood and interpreted in terms of the forest values involved.

Before we can attempt to evaluate fire effects it is necessary to understand that fire is a release of energy and that the energy does work. The effect of a fire on the environment is determined by the amount and rate of energy released. In Eucalypt forest fuel the amount of fuel burned has an enormous influence on fire behaviour. Doubling the amount of fuel burned doubles the rate of spread of the fire and increases its intensity four times. This happens without any change in weather or fuel moisture content.

Eucalypts are prolific shedders of dead material. Litter falls of more than $2\frac{1}{2}$ tons/acre/annum has been measured and even after losses due to decomposition are subtracted the build up can be as much as $1\frac{1}{4}$ tons/acre/annum. There is no evidence that this build up ceases in time. There is good evidence that the amount of litter beneath a Eucalypt forest is still increasing twenty years after a fire. By this time there may be ten to twenty tons per acre of litter on the ground. When the energy contained in this amount of fuel is released suddenly by fire enormous damage is done. Wildlife is killed, timber is damaged, erosion occurs and, all too frequently, lives and property are lost.

The control of high intensity fires is severely aggravated by spectacular "spotting" which is the result of the amount of physical character of bark in the litter. "Stringybark" and "candlebark" can comprise more than 30% of the total litter. This bark has some remarkable aerodynamic properties and it lifts readily in a convection current over a fire. It will carry long distances downwind and start spot fires ahead of the main fire front. "Spotting" up to 18 miles ahead of the main fire has been recorded. When this happens no reasonable amount of man and machine power can match the energy released by the fire. There is very little that can be done until either the weather changes or the fire runs out of fuel. This is not a defeatist attitude. It is a realistic appreciation of the facts.

The number of fires which develop this extreme behaviour is quite small, certainly less than 5%. The remainder are controlled by a very efficient fire control organisation. But the few high intensity fires cause most of the damage and despite improvements to detection systems and access and despite the latest developments in equipment, technology and firefighting techniques these fires have not been eliminated. It seems they are inevitable when drought dries out heavy fuel accumulations.

(continued)

Fire in the Forest - continued

If we look at the problem of these fires in its simplest terms it consists of three things.

- (1) the weather which dries the fuel
- (2) something to start the fire and
- (3) the amount of fuel available for burning.

There is not much that can be done about the weather and despite the best intended legislation and publicity against fire, fires still start. But the fuel can be altered and it is here that there is a real chance of doing something to reduce the damage done by wildfires. If the fuel is to be altered or reduced over large areas then fire is the obvious tool to use. The planned application of low intensity fire over a designated area to reduce fuel is known as control burning in Australia. It is not the purpose here to describe how this is done but to give some reasons why it is done and what is known about its effects on forest values.

The effect of control burning on reducing the area burned by devastating wildfires is well understood and there are now many instances where spectacular saves have been due to control burning. This, however, may not be enough to justify the practise over wide areas if control burning itself is causing damage to the forest. This is the problem that worries many people particularly those interested in flora and fauna.

There is no doubt that control burning alters the forest environment. The key questions are just what is being altered and how. Is it altering a natural environment in which all the values are in some sort of balance or is it altering something that is not natural? It seems likely that the heavy fuel accumulations that are found in many forests are not natural but are the result of forest practices and the exclusion of fire from the forests. There is no doubt that the accumulation of fuel itself causes a change in environment and there are many instances where this change is detrimental to wildlife and plant communities. If it could be guaranteed that all fire could be kept out of these fuels then the fuel build-up might be tolerable. But of course this cannot be guaranteed and as fuels get heavier the chances of wildfire increases. When Eucalypt fuel gets to 15 tons per acre a fire is uncontrollable in moderate fire danger weather. There are just too many moderate, high, very high and extreme fire danger days to expect that fire can be excluded from forests forever.

If control burning alters this unnatural fuel it is not too unreasonable to expect that the change is in the direction towards what was the original condition of the forest floor. It cannot be assumed that this is good for all biological

(continued)

Fire in the Forest - continued

and physical aspects of the forest but if we take a careful look at what is known about fire effects in the forest then it is immediately obvious that fire is not nearly as destructive as many people believe. In fact, as this story will attempt to show, there are many values within the forest which actually require fire for their very existence and without fire in some sort of frequency the value is lost.

(This excellent article will be concluded in our next issue).

Shaggy-peas of the Ranges - by Mr.K.Rogers of
Wulgulmerang.

On the combined weekend excursion to the Dargo High Plains of Jan.25th to 27th this year, one of the interesting botanical points raised, concerned the two alpine species of Shaggy-pea. Where we examined them near Mt. Blowhard the two species were growing together, as they often do on the higher tablelands and peaks.

The more widespread of the two, particularly at lower elevations, as around Lankeys Plain, is the Mountain Shaggy-pea (Oxylobium alpestre). This low shrub has hard, dull-green, narrow leaves, usually up to $1\frac{1}{2}$ inches long, with recurved margins, and rather conspicuous stipules. It is very abundant on many ridges and hillsides down to well below the 4000 foot level. This is the plant for which wombats frequently tear up the ground over quite extensive areas to get at the roots.

The other species, when at high altitudes, is in general appearance very similar. This is Golden Shaggy-pea (Oxylobium ellipticum). However we noticed it differed from O. alpestre in having much shorter leaves which are pointed downwards at the tip, or uncinatate, whilst the stipules are hard to see. The handsome orange flowers of this species are born in showy heads at the tips of the branches.

The tall foothill variety of Golden Shaggy-pea, with its long, narrow, scattered leaves, and often weeping habit appears so different that one always wondered how it could be the same species as the shrub on Mt. Blowhard and other similar situations.

In a recent letter Mr.J.H.Willis has informed me that the taller lowland Shaggy-pea was, to be correct, O. ellipticum var. angustifolium, but it is now regarded as a distinct

(continued)

Shaggy-peas of the Ranges - continued.

species, O.arborescens, whilst the alpine species, O. ellipticum, remains the same.

On a recent excursion to the Bowen Range, east of the Snowy River, at altitudes around 4000 feet, each of the above-mentioned species were frequently found growing together, but quite distincy from one another, hence the satisfaction of now knowing they are recognized as separate species. On visiting the Snowy Plains area in Jan. 1968 the very showy heads of flowers on the O.ellipticum, along the Tamboritha road, was indeed a sight to remember.

What, too, could be more striking than a patch of the taller species in flower along some road in the hills, with branches clothed in bright orange bending over the roadside.

Quite attractive, too, are the silver haired clusters of pods as they ripen on the tips of the branches of the alpine species; so from the foothills of East Gippsland to Victoria's highest peaks the Shaggy-pea in spring or summer adds its warm splash of colour to the mountain scene.

Keith Rogers.

A Wet Day in the Bush - by Mrs. G.Webb of Denison

When the February excursion of the Traralgon Field Naturalists' Club to Mt Erica was cancelled because of rain, two housewives and a ten year old girl who had been eagerly anticipating the outing donned plastic rainwear, and spent a very rewarding day in the bush.

After lunching in a reserve above Tyers, and botanising for a while with Miss Galbraith, we proceeded to the timber track known as W3 on the Walhalla Road above Tyers. We had to drive very slowly towards the lime quarries, as very heavy rain had fallen overnight. At times it was necessary to walk ahead to test the firmness of the surface, and each bend of the road brought its delights and surprises. Here a great swarm of orange and brown butterflies flew across our path - a charming dragon fly with delicate black tracteries on its broad wings flew into the car - we disturbed five male lyrebirds feeding in various places along the edge of the track, and they lumbered off awkwardly into the bush. The perfume of the fresh washed foliage was unforgettable, and the variation in texture and colour of the trees and shrubs showed out wonderfully against the drab sky. Particularly attractive was the Dusty Miller (Spyridium parvifolium).

(continued)

A Wet Day in the Bush - continued

and the Silky Daisy Bush (Olearia myrsinoides). We saw some interesting fungi and refreshed ourselves with ripe blackberries.

We had to leave the car about 200 yards above the quarries. A family of gang gangs sat on a dead tree above the river, and grizzled continually at our intrusion. Their wet plumage made the identification of many birds difficult, but we saw several varieties of honeyeaters, blue wrens, yellow and brown thornbills, grey fantails, a cheeky yellow robin, black cockatoos, thrushes, treecreepers and many others.

We walked on to the bridge over the Tyers River. There to our great excitement we saw two Azure Kingfishers feeding from the turbulent waters. Their colour was brilliant against the drabness of the dead tree trunks lying in the brown water.

We walked back through the dripping bush vibrant with bird calls, and from under the tree-ferns on the creek below the quarries, a lyrebird gave us a concert as a perfect ending to a wonderful day.

Gwen Webb.

Growing Banksia ericifolia - by Mr.E.Homann

Banksia ericifolia grows naturally along the coast and near coastal regions of New South Wales. In very favourable situations it may be a shrub growing to 15 feet. The nearest place to our area where it may be seen growing wild is at Merimbula, along the Old Tathra Road near the town rubbish tip.

The foliage of this plant is very fine, the limbs slender and graceful, and the flower a bronze to golden cylinder up to 10 inches long. The flowers are attractive in the bud stage with the developing cylinder having a diamond pattern of green and pale yellow. The first flowers may appear in late March and the last ones in October. Truly a very desirable shrub.

I have made many attempts to grow cuttings from my plant but neither they nor the layers I attempted were successful. Seeds might be the answer so while we were away last winter I gathered 3 of the most mature seed cones from a strikingly coloured bush near Port Macquarrie, N.S.W. and carried them with me until I reached home some 12 weeks later. I had thought that during that length of time the seed containers would have opened but this had not happened. However a short

(continued)

Growing Banksia ericifolia - continued

spell in a cool oven, followed by work on the seed cone with a hammer and chisel gave me some twenty seeds, blackish with a short broad terminal wing. These were sown in a seedbox in October the soil being a mixture of two-thirds sand to one-third garden soil, the box being covered with a sheet of glass and the soil being kept moist till the seedlings appeared. As soon as they were large enough to handle they were planted out in a 50-50 mixture of sand and soil in large beer cans. At the time of writing I have 10 healthy plants 3-4 inches high which should be ideal for planting out in May.

Ern Homann.

(Mr Homann has now only got 9 healthy plants - the editor having a lovely specimen now 7 inches high - thanks Ern.)

Canoe Tree - Rosedale

Aproximately one mile on the Traralgon side of Rosedale is a single dead red gum tree (either Eucalyptus tereticornis or E.camaldulensis). The tree is on the north edge of the road near an area which was once flooded by the nearby Latrobe River. The area where the aboriginies removed the bark can be plainly seen from the road. Of further interest to naturalists is an estimate of the age of the tree. It was believed to be 400 years old when it died - which was about 50 years ago. The bark was removed from the tree when it was about 150 years old which was 300 years ago.

Subscriptions

Members are reminded that subscriptions for the year 1969/70 fell due on the 1st of March.

Subscriptions are :-

Single adult -----\$1.50

Family -----\$2.00

and may be paid to the Treasurer

Mrs. L.Eadie,
108 Helen St.,
Morwell. 3840.

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Details of Contributing Clubs are as follows:-

LATROBE VALLEY FIELD NATURALISTS CLUB.

Honorary Secretary Mr.S.Belgraver, 179 Lloyd St., Moe.

Meetings Are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions Usually on the Saturday or Sunday after the general meeting, as shown on the program for the year.

WARRAGUL FIELD NATURALISTS CLUB.

Honorary Secretary Mr. J.Brooks, Nobel St., Warragul.

Meetings Are held on the third Friday of each month at the Albert St. State School, Warragul, commencing at 8.00 p.m.

Excursions Are held as arranged, usually two weeks after the monthly general meeting.

TRARALGON FIELD NATURALISTS CLUB.

Honorary Secretary Dr.D.W.Collins, 4 Charles St., Traralgon.

Meetings Are held on the second Friday of each month at the Grey St. State School, Traralgon commencing at 7.30 p.m.

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LATROBE VALLEY FIELD NATURALISTS CLUB.

YALLOURN. VICTORIA.

Dear Fellow Field Naturalists,

A MESSAGE FROM THE PRESIDENT.

The Western Victorian Conservation Committee, whose headquarters are in Portland, are very concerned at the boundaries proposed by the Minister of Lands for the Glenelg National Park.

The committee is particularly concerned about the Kentbruk Heathland which, instead of being attached to the National Park as an ecological unit, is to have a chain of farms through its centre thus destroying the unity of these heathlands which are centred on Moleside Creek, the headwaters of which and its tributary creeks are to be taken for farming. Those of us who remember the heathlands of South Giggisland of which so little remains can appreciate the desire of our friends in Western Victoria to preserve the only area of heathland left in their part of Victoria.

Accordingly I ask you to write to your local Member of Parliament asking him to support the inclusion in the proposed Glenelg National Park of the whole of the Kentbruck Heathland and additional areas as detailed in the submissions made by the Western Victorian Conservation Committee.

Local members of parliament are:-

Narracan	Hon J.C.M. Balfour	M.L.A.
South Gippsland..	Sir Herbert Hyland	M.L.A.
Morwell	Mr. A. Tanner	M.L.A.
Gippsland Province ..	Messrs. Hewson & May	M.L.C's.

This is the action recommended by our parent club, The Field Naturalist Club of Victoria, and applies also in the proposed settlement in the Little Desert.

Ern Homann.

GENERAL MEETING will be held on Friday, May 23rd, at the Yallourn State School.

Guest speaker will be Mr. Bruce Fuhrer. and his subject will be "Seaweeds".

EXCURSION - Saturday, May 24th. will be to the Cape Patterson area and will be led by Mr. Bruce Fuhrer. The meeting place will be at Leongatha - opposite the Butter Factory - at 10.00a m.

A MAJOR NATIONAL PARK FOR THE LOWER GLENELG

BACKGROUND:

In 1964 a submission was made to the appropriate Authorities by the P.F.N.C., that there should be a major National Park of about 48,000 acres in the Lower Glenelg area. An extremely detailed case, covering all aspects, and listing all botanical and zoological species was presented. The newly formed Lower Glenelg Conservation Committee (who have taken over the project from the P.F.N.C.) has learned that only about 1/3 of the 48,000 acres (in discontinuous areas) has been allocated for this Park, and that almost the whole of the Kentbruck Heathland section is to be cleared for settlement in the immediate future. Such an allocation would not constitute a major national park, besides many unique and irreplaceable features would be destroyed.

THE PROPOSED PARK:

The proposed Park has a spectacular landscape, a major waterway, a profusion of flowering plants, and many species of birds and mammals.

The Kentbruck Heathland is one area of outstanding interest. It contains over 500 species of flowering Plants, treeferns (the most westerly on the continent growing in their natural state), over 80 species of mosses, almost 300 species of fungi, with many rare kinds, over 50 species of lichens and liverworts, 161 species of birds, and 37 species of animals, making it one of the richest habitats in the south east Australia.

The Soil Conservation Authority cites it as unique in being heathland in wet and exposed conditions, and with vegetation an ecology quite different from those of other sandy heathlands. It is the only habitat of its kind in Australia.

GOVERNMENT PLANS FOR THE AREA:

(A) Closer Settlement:—

The Minister for Lands has said that a total of 26,000 acres, including the heathland, is to be opened up for settlement. The heathland is mostly swampland and is unsuitable for any type of primary production.

Even those who want to clear the heath for settlement concede that the treeferns should remain. These cannot be preserved unless the water catchment of the creeks where they grow is left untouched, and this is almost the whole Kentbruck heath.

Seven blocks of this heathland opened for settlement in 1963 as a pilot scheme have not proved themselves; yet in spite of this the Government seems determined to settle the whole of this area. In a major book published by the Soil Conservation Authority, "A Study of the Land in South Western Victoria" Gibbons and Downes stressed the unsuitability of Kentbruck Heathland for settlement, and advised the retention of the area comprising the Moleside Creek system for Parkland. Yet the Government is prepared to reject the recommendations of its own Technical Officers.

The Officers also recommended that the chief means of increasing production lies in the improvement of existing farms to the high level already attained on the best properties. Of the 527,000 acres of alienated land in the Portland Shire over 50% is still undeveloped!

The cost of the Government's proposed settlement scheme including drainage, roads, power, telephone, schools, etc. is estimated to be five to six million dollars.

This money will be taken from Victoria's economy at a time when schools, teachers, health services and communications are much more urgent than land Settlement, and at a time when primary producers are struggling to re-habilitate themselves after the most disastrous drought in Victoria's history.

(B) Pine Plantations:—

The Forests Commission plans to plant pines to within three chains of the Glenelg river. Such planting would despoil one of the most spectacular rivers on the continent, and destroy the unity of the Park. Preservation of the native bush along this river would require a much greater margin than this.

The Forests Commission always provides substantial blocks of indifferent timber to buffer the hardwood areas. If wider margins are needed for this purpose, they are also needed along the Glenelg.

In the western end of the proposed Park almost all the land required for pines is marginal, and for this reason should be included in the Park, besides it contains habitats not found elsewhere in the proposed Park. The Bullies ridge area is especially valuable in this respect.

ESTABLISHED FACTS:

1. Large undisturbed areas of natural habitat, such as that in the proposed Park, are a most important "reference" book for students in Agriculture, Entomology, Botany, Forestry and Zoology; branches of sciences that are vital to our primary industries.
2. National Parks are recognised as a legitimate form of land use.
3. National Parks are one of the most important links in the chain of tourism, and this industry is worth nearly 2 million dollars annually to Portland.
4. The need for increased areas for recreation is growing faster than for any other form of land use. The selection of Portland for 'instant development' requires the setting aside of substantial recreational areas, such as that envisaged in the proposed Park.
5. Victoria's 380,000 acres for all National Parks, or .6% of its total area, is paltry when compared to other Australian States and overseas.

A major National Park is for the whole of Australia — This is the last chance to establish such a Park, with its many unique and irreplaceable features — You can help this cause by writing to the newspapers and to your Parliamentary Representative.

EXECUTIVE MEETING - May 27th will be held at the home of Mr. and Mrs. Moretti, 130 Princes Highway, Traralgon.

EXTRACTS FROM THE EXECUTIVE MEETING held on Tuesday, 29th April at the home of Mr. and Mrs. Thompson at Koornalla.

This was a well attended meeting, eleven members being present, speaking well of the interest of members in the activities of the Club. Subjects discussed were:-

GLENELG NATIONAL PARK. This was discussed at length. It was decided that the club would write letters of protest to local members of parliament and encourage our members to do likewise. It was further decided to investigate other ways in which we could assist the Western Victorian Conservation Committee.

CAR STICKERS. It was decided that there was need for a follow up letter to be sent to all clubs.

LIBRARY. Work on cataloguing the books in the library is proceeding. It is expected that a list of books will be made available to members in the near future.

SUPPER. It was unanimously agreed that the provision of supper after our meetings has been very successful. However concern was expressed that this work could fall upon the shoulders of a few. It was decided to approach the members calling for volunteers, then to draw up a roster.

REPORT OF GENERAL MEETING - Friday May 2nd.

Mr. R. Filson, of the National Herbarium, Melbourne, gave an enlightening talk on the little known subject of "Lichens". He commenced by explaining the very wide ecological range over which lichens grow; in crevices from 10ft below the ice surface in the Antarctic, to the sands of the desert in Central Australia and in the rain forests in the mountains of Queensland. Lichens are a balanced combination of a fungus and an algae. The fungus supplies the minerals and water for the plant and the algae, containing the chlorophyll, supplies the sugars.

Mr. Filson explained the methods of identification including microscopic examination, colour tests with chemical agents and ultra-violet light tests. Identification, except into families, is very difficult and lack of literature on the subject adds to this problem. In Iceland certain lichens are gathered and sold for use in bread, gruel, salads and jellies. In Japan some are used as a delicacy, in other countries, because of a hot flavour, in curries and in others, especially Russia, instead of

Report of General Meeting - continued.

hops in the manufacture of alcoholic beverages. Also reindeer can and are often required to live entirely on lichens.

Miss J. Galbraith moved the vote of thanks and spoke for everyone when she said that Mr Filson had given the club an insight into a new field of natural history.

IMPRESSIONS OF SAGASSER'S ROAD - An account of the March excursion by Mr. E. Homann.

On the morning of Saturday 29th March, eleven cars assembled at the Thorpdale Swimming Pool. Included in the party were two members of the Warragul Club.

Our first stop was some 2 miles south of Thorpdale where our leader, Mr. R. N. Auchterlonie, pointed out the site where, in the early days, grew a mountain ash (Eucalyptus regnans) 375 ft high which was felled and split into palings.

Next we travelled down the steep grade of the Dingley Dell Road to the Grand Ridge Road which we followed to its junction with the Leongatha - Yarragon Road and then to the bridge over the Tarwin, we took the left hand road at the bridge. This follows the river and is Sagasser's Road.

As we climbed beside the river, the cleared country was soon left behind and we were in bush country. Tall straight mountain ash rose from the lower cover of blackwoods (Acacia melanoxylon), silver wattles (Acacia dealbata), hazel (Pomaderris apetala), and ferns. The silver wattle justifies its name when it stands out silver-blue against a background of dark foliated blackwoods.

The first stop produced colourful fungi for the energetic who scrambled down the river bank. Tree ferns grew along the road and these were the rough tree-fern (Cyathea australis).

A clearing close to the first waterfall was a good place for lunch. Here the dogwood (Cassinia longifolia) encircled the clearing and there were many plants of a daisy-bush (probably Olearia lirata). On a ridge across the road appeared the clear white columns of gums - probably manna gums (Eucalyptus viminalis). The young and active climbed down to the foot of the falls and spoke on their return of ferns, fungi and leeches.

Our next stop was at the second falls, hard to see in its deep gully. As well as ash, there were fine specimens of mountain grey gum (Eucalyptus cypellocarpa) here. Many fine specimens of the prickly currant-bush (Coprosma billardieri) were

Impressions of Sagasser's Road - continued.

observed here and also plants of the creeper, purple appleberry (Billardiera longiflora) some bearing their purple fruits.

A brief stop at the third falls and we were in open country again. Soon the country fell away sharply and below us was a panorama of a large section of the Gippsland Valley. Turning left the road climbed Mt. Worth and here the view, given a clear day, is magnificent. Going back the Allambee Rd. was taken and we passed through vigorous plantations of mountain ash - and pines. Through Childers next passing through picturesque farming lands where the red of the cultivated soil contrasted vividly with the green of the grass. Every valley had its dam of series of dams in this potatoe-growing country. The green rolling hills are unique in Australia.

And so back to Thorpdale after another memorable excursion. Many thanks to our leader, Mr.R.N.Auchterlonie.

Ern Homann.

BIRD OBSERVER'S EASTER CAMP - Cowwarr 1969.

A report from Mrs.G.Webb and Mr.F.Jones.

This camp was a record one as far as numbers camping were concerned. Under the able leadership of Mr. Roy Wheeler, M.B.E. 130 people camped on the site, and about another 40 from surrounding Field Naturalists' Clubs and the district visited Cowwarr or joined the party on excursions.

The weather was superb, the setting truly delightful and short drives and walks lead to very successful bird sighting areas. Friday was settling in day, and walks around the camp area and to the weir yeilded a total of 90 different species sighted on the first day. As might be expected, with such a large number of people looking for birds over an area extending from Glenmaggie to the Tyers River, many birds not often seen in the district were recorded. Among these were the Painted Quail, Regent Honey-eater, Diamond Firetail, Hooded Robin, Speckled Warbler, Little Grass-bird, Heath Wren (Hylacola), and King Parrot. A species seen by most observers chiefly around the hills near the camp site appeared to be the Little Cuckoo-shrike, however there were so many that seemed to be intermediate, both in plumage and conformation, between it and the more widely known Black-faced Cuckoo-shrike, that their identity is doubtful. The official list of birds recorded during this camp-out will be a challenge and inspiration to Gippsland bird-watchers as it will serve to draw attention to the variety of beautiful and interesting birds that are in our area.

Bird Observer's Easter Camp - continued.

Saturday was spent at Stoney Creek where the party divided up into several groups, and despite strong winds some interesting sightings were made. Quite a large cavalcade of cars followed Mr. Peterson on an inspection of the proposed National Park area along the Tyers River. After the calling of the bird list around the camp fire at night, with a total of 118 varieties sighted, slides were shown by Mr. Frazer Leyshan of Heyfield of trips to Mt. Howitt and Lake Tarli Karng.

On Sunday a full day trip to Glenmaggie was undertaken. The bus and cars stopped on the corner of the Dawson and Seaton Roads, and we were rewarded by sighting 12 Regent Honey-eaters and a large flock of Musk Lorikeets. Another stop was made at the weir backwater, and then the party lunched at the Glenmaggie Weir wall, and walked to Lanigans Bridge. Many had their first sighting of an Azure Kingfisher along an irrigation channel. At night another two species were added to the list, to make a total of 120 species for the camp. A gala night was held, with the Wheeler quiz, a fancy dress competition for younger members who all represented a native bird, and a sing-song round the camp fire.

The Club President, Mr. Reg Johnson, thanked all the local people who had assisted in making the camp such a success. The visitors who had not been in the area before were delighted with the beauty and variety of the countryside, and many expressed their intention of returning.

Gwen Webb and Frank Jones.

FIRE IN THE FOREST. Prepared by Mr. A. Hodgson of the Forests Commission. (Continued from Issue No. 64.)

Let us consider some of these values more specifically.
Wildlife.

The effect of fire on wildlife must be looked at in terms of the effect on habitat. It is not significant that wildlife can be seen on a burnt area a day or so after the fire. Neither is it significant to find a few dead birds and animals in a fire. The change in the habitat determines whether or not wildlife populations thrive or decline after a fire and it is only in these terms that fire effects can be judged.

There is little doubt that wildlife populations are resilient to fire. The resilience depends much on their ability to move away from the flames as a fire passes and to take advantage of both unburnt and burnt country for shelter and food after the fire passes. A real danger to wildlife populations from fire exists

Fire in the Forest - continued.

because they are weakened by land use practices such as farming which has reduced the area of habitat and restricted their ability to move. The Helmeted Honeyeater of Western Gippsland in Victoria is a good example of this. It once ranged over the forested land in West and South Gippsland. Land clearing within its normal habitat has restricted the birds to timbered roads and watercourses in a small area of West Gippsland. It is now in a condition where a single high intensity fire could wipe out the whole population.

Many instances are known where fire and wildlife are compatible. Bandicoots, Emus, Wallabies, Lyrebirds and Quail are all known to seek and use burnt ground. Parrots feed on the vegetation which responds to fire. Kangaroos are being reported in increasing numbers in Messmate-gum forests of Central Victoria where fuel reduction burning started in 1960.

Leadbeaters possum which has been rediscovered in Victoria after being thought to be extinct for 80 years requires regenerating Mountain Ash for its habitat. Neither man nor nature has had much success in producing this habitat without the aid of fire. The direct benefit of fire to this animal is obvious.

Minor Vegetation.

Ground vegetation is a necessary value in the forest environment. It provides habitat for wildlife and is essential for recreating. Many interesting species respond favourably to fire. Colonies of Pink Heath, Victoria's floral emblem, deteriorate if not burned for seven years. Thryptomene becomes woody and unattractive without burning. Poa grass revegetates Messmate-gum forest in Central Victoria after repeated fires. Acacia and Daviesia can be managed by the frequency with which the area is burned. An orchid survey in forest at Daylesford in Victoria produced the following results.

ORCHIDS. POPULATION SURVEY.

Before Burn 1964-65	After Burn 1966-67
Greenhoods. <i>Pterostylus nana</i>	No change
" <i>nutans</i>	" "
" <i>longifolia</i>	" "
Musk Orchids. <i>Caladenia angustata</i>	Up 20%
" <i>carnea</i>	" "
" <i>caerulea</i>	" "
Sun Orchid. <i>Thelymitra media</i>	No change
Cinnamon Bells. <i>Gastrodia sesamoides</i>	Up 25%
Hyacinth Orchid. <i>Dipodium punctatum</i>	" "
Copper Beard. <i>Calocylus campestris</i>	No change
Bird Orchid. <i>Chiloglottis gunnii</i>	Up 300 to 400%
Leek Orchid. <i>Prasophyllum odoratum</i>	" " " "

Fire in the Forest - continued.

Two orchids, Mosquito orchid and Parson's Band which were not recorded on the plots before burning, appeared after burning.

An area 80 miles north of Melbourne provided a magnificent display of wildflowers in 1966 and 1967. This was a result of a large fire in 1965. The fact that the same fire killed seven people highlights the fact that fire can be both good and bad depending on the values involved.

It is no coincidence that two famous wildflower areas, the Grampians in Victoria and the S.W. of Western Australia are areas where prescribed burning and accidental fires are common. The West Australian Kangaroo's Paw has even appeared on burned areas within pine plantations.

Timber Quality and Increment.

The effect of fire on Mountain Ash in S.E. Australia is well known. Trees killed in 1926 and 1939 are stark evidence of the damage that can occur. Even low intensity fires during the life of trees of this species seem incompatible with timber values.

Fire effects on more resistant species are less clear. They are obviously a function of fire intensity and frequency of occurrence. Wildfire effects on Messmate-gum type forest in Victoria are illustrated by these figures taken in the second year after a fire.

INCREMENT MEASUREMENTS.

Messmate-Gum	Log Volume Increment (Su.ft/acre/annum)	
	Burned (3500 BTU/sec/ft)	Unburned
SQ II	83	250
SQ III	19	75

Fire intensities below 100 BTU/sec/ft in the same forest have had no effect on increment.

Other research projects in Western Australia and Victoria indicate that if the scorch height from a fire is kept below the level of the leading tip of the tree no loss of growth results.

Soil and Water.

Control burning produces a very insignificant temperature rise in the soil. Certainly not enough to have any physical effect on those soil characters which affect erosion and water runoff. It apparently increased stream flow. It may also increase the solid content of any surface runoff that does occur. This could be a bad thing if the whole catchment is burned. This is unlikely in a properly executed burning programme. Wildfire will

Fire in the Forest - continued.

burn whole catchments and their effects are known to be bad.
Recreation.

The effect of control burning on aesthetic and recreating values can, in the short term, be detrimental. Black stems, burned wildflowers and dead scrub are not attractive to those who use the forest rarely. But this appearance is short lived and must be looked at as an ecological change in the environment rather than a destruction of values. The forest environment is dynamic and is always undergoing change. It can be changed by fire and it will change if fire is excluded. This latter fact is often overlooked, but it is important because the change can be just as detrimental to some values as if the area was damaged by wildfire. This point is well illustrated by the following quotation of the Chief, Northern Forest Fire Laboratory, Missoula, Montana (Time News Magazine, September 16, 1967) speaking about wilderness areas in the northern Rocky Mountains.

"Fire has played an important part in building our beautiful wilderness areas. It has come through the forest harvesting, destroying old stands and making way for new ones. If we remove fire 100%, we may destroy rather than protect our wilderness areas".

This is a very penetrating thought which all people who are interested in nature conservation should consider when they advocate protection of natural assets on forest land. Foresters have considered it in their studies of ecological changes brought about by fire and other forest management practices. As a result of their knowledge of these changes and the forces that cause the changes, foresters use fire where it is an essential tool in forest management, and they attempt to exclude it as an undesirable force when and where its effects are bad.

A. Hodgson.

TWO INTERESTING NOTES. from Mrs Johnstone of Tyers.

Platypuses

Late in November 1968, Jack and Philip spent a few days trout-fishing in Lake Jindabyne, N.S.W. In one small snowgum and boulder decorated inlet they saw four platypuses at once, and estimate that there must have been at least six of the animals feeding in the rising waters there.

Long-necked Tortoise.

On 30/11/'68 on a bare patch near the top of a dry bank beside a farm pond, the sight of a wet patch drew attention to

Two Interesting Notes - continued.

a tortoise busy preparing to lay its eggs. Water having been applied to the soil, the reptile was using its hind flippers to drill a neat pit. My visit must have disturbed it, for when I returned about fifteen minutes later, it had disappeared without completing its task.

Last summer, after seeing a White-faced Heron fly from beside another pond, a Tortoise was found similarly employed. Broken and partly eaten eggs on the ground behind it indicated that the Heron must have been removing and eating the eggs as they were laid.

J. Johnstone.

ANOTHER IMPRESSION OF SAGASSER'S ROAD - the experiences of Mr.B.Sterkenburg.

Saturday the 29th of March was a perfect day - at least it started and finished that way for us. We left the swimming pool at Thorpdale under the guidance of Mr.Bob Auchterlonie and headed in the direction of Mirboo North. We turned right along the Dingley Dell Road. My poor car was loaded with four passengers. I wouldn't say my passengers were heavy but to call them light would be an exaggeration.

Suddenly we hit a high part in the middle of the road and with a bang we lost part of the exhaust. My passengers were generously offered seats in other cars but they were loyal to the driver and stayed. We lost the convoy but hoped to pick it up later, which we did - much later.

We were soon away again but none of us knew exactly where to go, except that Sagasser's Road and Mount Worth were on the program. Coming to a fork in the road we decided to go where most of the car tracks went - after all 12 cars make a lot of tracks. We drove for miles and miles expecting to lose more of the exhaust on every corrugated corner, finally seeing a milk tanker. I asked the driver where Sagasser's Road was. "Man, you are miles from it, you are on the Grand Ridge Road about 13 miles from Warragul." We had been following the tracks of a ten-wheeled tanker.

We decided to have lunch and then had our own little excursion up a nearby hill. There were very nice shrubs and trees, berries of the purple appleberry, two varieties of pittosporum and big bunches of clematis seeds showing against the blue sky. There were blue wrens, grey thrushes, pigeons and fantails. After this refreshing walk we climbed aboard, passed Mount Worth and came to a road I knew well; I had been there several times looking for ferns and mosses near the waterfalls.

Another Impression of Sagasser's Road - continued.

A farmer's son was approached and asked where Sagasser's Road was. "You are right on it," he answered with a broad grin. And about 500 yards further on we nearly collided with our Field Nats group. We turned and made our second visit to Mount Worth, this time from the East.

Mr Auchterlonie, it was not your fault that you lost part of your convoy, nor were you to blame that we did twice the milage; but we were the only ones who approached Mount Worth from both directions and it was - WORTH IT.

Bart Sterkenburg.

BOOK REVIEW - Venomous Australian Animals Dangerous to Man. Edited by J. Ross Garnet.

Mr Garnet is well qualified to edit this book, he being a Biochemist with the Commonwealth Serum Laboratories and a leading naturalist. He is well known in this latter field to our members having been guest speaker and excursion leader for our Club.

This book has had very favourable reports in all reviews I have read. It deals, as the title indicates, with all Australian venomous animals - including the Blue-ringed Octopus. Not only does it give details of the animals, it gives accurate details of treatment of wounds inflicted by these animals. For this reason alone it is a book which should be held by all naturalists, not on the shelves, but part of their first-aid kit.

Twelve copies were purchased by the club and were immediately sold. You can obtain a copy by placing an order with the Treasurer.

J.M.P.

WARRAGUL FIELD NATURALISTS CLUB.

For the May meeting on the 16th, we have a guest speaker - Mr. K. Hartley - who will give a slide show on his recent trip to the Kimberleys; an area in the opposite corner of this great continent brought much closer to us by the aeroplane, as Mr. Hartley's show will demonstrate.

Members are reminded that subscriptions are due and payment of same will ensure continuity of receipt of this journal as Postal regulations confine postings to financial members only. 1969 rates are as for last year:-

Single Adult --\$1.00, Family--\$1.50.

A \$1.00 optional levy to aid Club funds is accepted from members so disposed.

J.M. Brooks.

The LATROBE VALLEY NATURALIST

Is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect or branch of natural history are invited from any persons interested and should be addressed to the Honorary Editor, Mr.J.M.Peterson, 14 Barry St., Morwell, Vic. 3840.

Details of Contributing Clubs are as follows:-

LATROBE VALLEY FIELD NATURALISTS CLUB.

Honorary Secretary Mr.S.Belgraver, 179 Lloyd St., Moe.

Meetings Are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions Usually on the Saturday or Sunday after the general meeting, as shown on the program for the year.

WARRAGUL FIELD NATURALISTS CLUB.

Honorary Secretary Mr. J.Brooks, Nobel St., Warragul.

Meetings Are held on the third Friday of each month at the Albert St. State School, Warragul, commencing at 8.00 p.m.

Excursions Are held as arranged, usually two weeks after the monthly general meeting.

TRARALGON FIELD NATURALISTS CLUB.

Honorary Secretary Dr.D.W.Collins, 4 Charles St., Traralgon.

Meetings Are held on the second Friday of each month at the Grey St. State School, Traralgon commencing at 7.30 p.m.

Excursions These are arranged usually for the Sunday following the general meeting.

Each Club welcomes visitors to meetings and excursions.

ISSUE No. 66.

JUNE, 1969



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FORTHCOMING EVENTS.

ooooooo MEETINGS ooooooo

WARRAGUL F.N.C. -----Friday 20th June.

Speaker:- J.Peterson L.V.F.N.C.

Subject:- "Some Aspects of National Parks"

LATROBE VALLEY F.N.C. -----Friday 27th June.

Speaker:- Mr Jack Hyett - Natural history author

Subject:- "Nature"

SALE F.N.C. -----Friday 4th July.

Speaker:- Miss Joan Dickson, Curator of Vertebrates,
National Museum of Victoria.

Subject:- "Mammals".

TRARALGON F.N.C. -----Friday 4th July.

Speaker:- Mr C.Sykes of Bairnsdale.

Subject:- "Birds"

ooooooo EXCURSIONS ooooooo

LATROBE VALLEY F.N.C. -----Saturday 28th June

Meeting place:- Rosedale Railway Crossing at 10.00 am.

Excursion to:- Limepit Road, Rosedale South.

TRARALGON F.N.C. -----Sunday 6th July.

Excursion to:- Tyers River area.

LATROBE VALLEY NATURALIST'S CLUB.
YALLOURN - VICTORIA.

Dear Fellow Naturalists,

EXTRACTS FROM EXECUTIVE MEETING

held on Tuesday,
27th May at the home of Mr. and Mrs. Moretti at Traralgon.

PHOTOFLORA - 1970. It was decided to have the screening of the winning slides again and that the date would be either the 13th or the 20th of March.

PROPOSED RESERVE - LEONGATHA. Mrs London advised that an area of 7 acres of bushland was being offered to the Woorayl Shire by its owner, Mr Hammann. The land would be donated provided the shire will survey and fence it. The area is a good representation of the type of vegetation which characterised that part of Gippsland and is situated about 5 miles North of Leongatha.

It was unanimously agreed that a letter be forwarded by the club to the Woorayl Shire encouraging their acceptance of the offer.

PRESERVATION OF ROADSIDE FLORA. It was agreed that letters be sent to the Chairman of Committee of Tourism and to the R.A.C.V. drawing their attention to the need for the preservation of roadside flora in order to beautify the landscape.

LIMEPIT ROAD EXCURSION. Saturday, June 28. It was reported that Mr. and Mrs. Thompson had listed a further 30 species in the area bringing the current list to over 100 species.

It was suggested that the proposed excursion continue with this work. by dividing up into small groups and systematically cover the area. This would be a very worthwhile job for our members and at the same time providing an excellent opportunity to learn more of our native flora.

ORDERS FOR "VENOMOUS AUSTRALIAN ANIMALS DANGEROUS TO MAN" Some orders for this book have been placed with the Treasurer. It was decided that closing date for orders would be on the night of the next meeting - Friday, June 27.

NEXT EXECUTIVE MEETING. Will be held on Tuesday, 1st July, at the home of Mr. and Mrs. Homann, 84 Hennessey St., Moe.

An invitation is extended to any member interested in management of the club to attend any of the executive meetings.

WALKERVILLE EXCURSION. 1st March 1969. We thank Mrs. Brewster for this account of the excursion which she most capably led.

From the meeting place at Meeniyan, at the junction of the South Gippsland Highway and the Dumbalk Road, our procession of a dozen cars set out on the Fish Creek Road as far as the turn off to Walkerville. The road goes over country that has been sandy plains and lightly timbered rises of fine and medium gravels with heath and spear grass. This has been recently developed for grazing and along the roadside are the now sparse remains of the original heathland flora. Beyond Buffalo we took the route that, a few years ago, was the Horror Track. There used to be a large notice at the Buffalo end warning travellers, "Stop. No Caravans. Heavy sand drifts. Do not take this track unless you know it". Now it is a reasonable road to serve the properties being developed from scrub and heathland to be dairy, beef and sheep farms. One stop along this road was of interest for the plants, birds and spiders.

The weather was fine so a good view was before us at the stopping place on the Loop Road. Corner Inlet, Waratah Bay, Wilson's Promontory, the off-shore islands, Venus Bay to Cape Patterson, the Middle Tarwin sand pits, the Hoddle Range and the Gunyah Hills were all clearly to be seen. Around us there was quite a fair amount of flora of interest in the near edge of the proposed reserve. One fine Hyacinth Orchid drew admiring glances. Another short stop at the start of the Bear Gully Road for the botonists who were looking for the Forked Sundew and other low growing plants of damp areas, and a stop where Bear Gully Creek crosses the road for ferns and birds. Beyond this point the road becomes more of a test for the drivers, but we all arrived safely at Bear Gully for lunch.

The geology of the Waratah area is very complex, consisting of a folded and faulted group of older rocks covered with more recent sands and gravels. Except for Maitland Beach, where we were, the coastline is rocky and bounded by headlands 100 to 200 feet high. Off the headlands occur rock-stacks of limestone, which are usually dense, crystalline and hard. Most of them are connected to the mainland at low tide. As our intention was to walk north to Bell Point while the tide was low to see some of these fascinating rock formations and collect gemstones and others of interest, we first checked the formations we were to see on the chart and map and were able to look at samples of the various rocks to be found in the area. Along this one mile stretch of beach are to be found a great variety of rocks:- diabase - altered dolerite or basalt;; olivine which weathers to serpentine; black limestone; iron carbonate boulder and jointing in sandstone; brown coal; quartzite - metamorphosed (changed) sandstone; gemstones - jasper, chalcedony, agates, rock crystal; and further north fossil remains. We were able to race the tide

Walkerville Excursion - continued.

to Bell Point and see the wonderful folded and faulted strata and many were the specimens of rocks collected. Some strong and noble men carted delightful water-washed ironstone boulders back to the cars as their samples of rock. One stone per man - understood when anyone else tried to lift them.

As well as rocks, shells were collected. This is usually a good spot for finding Cowrie shells and many others as beautiful and interesting as the many stones.

The Brewsters

TALKING OF LICHENS. Details of the excursion of the 3rd of May given by Mrs. Ellen Lyndon.

Following Mr. Filson's talk on lichens, reported in the May Naturalist, an excursion was arranged to the South Cascade area on the shoulder of Mt. Baw Baw. It was a beautiful autumn morning when the cavalcade of cars left Parker's Corner at Erica and, following the windings of the bush road, came at length to the familiar spot beside the bridge over the South Cascade Creek.

Mr. Filson proved to be a leader of the old tradition, pointing out anything of interest by the track and cheerfully examining and explaining all specimens that were brought to him throughout the day. We all felt that we had learned something of a difficult subject, and as Miss Galbraith put it, had more than a good peep through the new window opened to us that weekend.

The plant body, or thallus, of a lichen, is made up of two quite different organisms, growing together in close association, a fungus and a microscopical green plant called an alga. Fungi, like animals, are unable to live without a supply of organic food, and most of them exist on the dead remains or the living bodies of host organisms. Algae, being green like other plants, can make their own food from carbon dioxide and water and require only a few mineral substances in addition. In a lichen, both the fungus and the alga live on the food manufactured by the alga. The algae found inside lichen thalli do not seem at all specialised, for they belong to species that are often found living free, sometimes in similar places to those inhabited by the lichens. Several different species of algae occur in lichens, but for a given kind of lichen there is usually only one kind of algae present and this is always the same. On the other hand lichen fungi are not known to occur in nature except as lichens, although many may be artificially grown free on some nutritive substance. Lichen fungi belong mainly to that group of fungi known as Ascomycetes, in which the spores are born in sac-shaped cells

Talking of Lichens - continued.

known as asci. Lichens, of course, reproduce themselves by means of microscopically small spores. The plants grow very very slowly and are able to withstand drying out completely for long periods, reviving and resuming growth when thoroughly wetted again. Lichens are not considered to be very primitive. They are complex dual organisms that must surely have arisen rather late in evolution.

Little has been published on Australian Lichens but there is a useful illustrated European handbook, quite inexpensive, "The Observers Book of Lichens" by Alvin and Kershaw, obtainable in city bookshops. It deals with many of the main families we find here.

There are three main kinds of lichen, distinguishable from each other by their general habit of growth and the manner of their attachment to the object on which they grow. Firstly, the Fruticose Lichens. The term has nothing to do with the fruit but means the plant is shrubby or bushy, erect or pendant, and attached only at the base. Secondly, the Foliose Lichens. These look leafy and creep or spread horizontally in layers or frills, attached as they go by root-like threads. And thirdly, the Crustose Lichens. These are the crusty stickfast types that cover rocks and the bark of trees. It is difficult to collect specimens of these as they simply crumble away as one tries to scrape them off their host. Just to complicate matters there are many intermediate forms between the three sorts.

In the moist and humid fairyland of the gully lichens are plentiful, along with mosses and fungi. We soon came to the fruticose Usneas, Old Man's Beard as the long pendant ones are called, attached firmly to the trees at one main point. Other forms of Usnea bore large terminal discs on the tips of some branches, fringed with soft bristles. There were beautiful Stictas on the trees above the water. Here the thallus has a rounded outline deeply divided into crisped lobes often in layers like leaves. The upper surface may be grey-green or pale brown to bluish, and the lower one dark brown and downy, dotted all over with tiny white spots. Mr. Filson exhibited a huge staghorn clump of Sticta at the meeting. It was growing on a sheet of bark. Monegazzia was a dainty one. The bright green thallus lobes are inflated, and perforated on the upper surface with little round holes. It is very lacy looking. Sphaerophorus grew only on the beech trees, bright green, stiffly branched like coral. Cladonia was another common family seen, on fern trunks or road banks. It includes all those delightful elf cups on slender stems, and branching staghorn types, some plain and simple, others heavily "mossed". On other excursions we have seen the little red or pink fungal fruiting bodies that decorate the edges of the cups or crown the straight plain-stemmed types. Stereocaulon grew on the

Talking of Lichens - continued.

rocks in the stream bed among the moss. A stiffly tufted grey green plant with branches covered with greenish scales called phyllocladia. The tips bore solid reddish caps and Mr. Filson pointed out tiny fungal balloons growing along the stems. These were just a few of the interesting things seen. All these strange names and terms may seem formidable at first sight but so little is known of this fascinating realm of lower plants that common names just haven't been invented. Here is a field for the enthusiastic amateur who wants to specialise! Something like 16,000 species have been described already!

After lunch the whole party re entered the cars and proceeded up the road to where a splendid lookout gave on to a vast panorama of mountain ranges. Then onward again via the new road that will eventually rise right on to the Baw Baw plateau. Recent heavy rains had stopped all work and the steepest part of the prospective road looked just like a river of deep slippery black porridge, with yellow islands that were items of heavy machinery. The more canny members of our club, together with the leader and his young family, found plenty to interest them in the nearest shrubbery. A small party, however, led by the redoubtable Mr. Tove, set out for the top of the range. When last seen, that is from the point where I chickened out some three quarters of the way up, they were still valiantly wading through the mud with no snowgums in sight.

A sincere expression of thanks to Mr. and Mrs. Filson and a good run home brought an end to a memorable day.

E. Lyndon.

BIRDS AND THEIR TERRITORIES. More observations made by Mr. Frank Jones.

It is a well known fact that birds of many kinds return to the same locality to nest each year, but there is a certain amount of snug satisfaction in being able to go to a familiar place at the right time of the year to find the birds (perhaps the same nesting pairs that have been observed there in previous years) have returned to their chosen territories. A place seems to have added character and interest if it is known to be the selected retreat of breeding birds.

It is stimulating to try to understand how the birds choose a suitable habitat for the breeding season, and what factors determine the boundaries of their territories. The vague phrase "instinctive behaviour" cannot explain away the feeling of

Birds and their Territories - continued.

mystery that surrounds the movements of birds, and yet they do not seem to have power of reason that is always(?) apparent in human beings; almost at times, it seems that the birds are guided by some sense unknown to humans.

The Golden Whistlers, wanderers for most of the year, return to their nesting localities every spring, and over the past four years, in one of many scrubby gullies in the Boola State Forest I have observed the nests each year of a pair of Golden Whistlers all within a radius of 30 yards, and although the birds have not been banded for positive identification, I presume from other evidence that the same pair have nested there each time. Birds seem to have individual preferences in the choice of nesting sites and material, and this pair have on each occasion built 5 or 6 feet from the ground in the branches of a Bush Pea (Pultenaea daphnoides) which grows as a harsh, unhealthy looking shrub in this area, and when building the nest the bird has always included soft strips of Messmate bark, whereas the nests of other Golden Whistlers are often made entirely of twigs. The territory of this pair adjoins that of another that could usually be heard in a patch of Burgan (Leptospermum ericoides) just across the gully, and although I spent much time bird watching and photographing in this area I saw no conflict between neighbouring males, so it appears that all territorial disputes have been settled long ago.

At times the sustained and enthusiastic song of the Rufous Whistler was heard, but always higher up the slope where the Wire-grass (Tetrarrhena juncea) and Flat Pea (Platylobium formosum) grow in a tangled mass among the timber forming a slightly different habitat although only a stone's throw away from the Golden Whistler country, and here again the Rufous Whistlers appeared to respect the invisible dividing line between themselves and their neighbours. Also the Olive Whistlers were often seen along the gully and apparently these are tolerated by the Goldens, but as the Olive Whistler feeds mainly on the ground and in the dense, low undergrowth, whereas the Golden Whistler feeds in the trees perhaps their paths would not often cross.

The Flame Robins have definite areas to go to in the colder months as well as regular nesting places in summer, and in this respect differ from the "wander in winter, stay put in summer" habits of the Golden Whistler. In general there is a movement of Flame Robins out of the hills with the approach of winter, and they turn up at the same feeding grounds each year. That they return to the same breeding localities in spring is well known and I have been able to confirm this by my own banding and retrapping in recent years. They arrive in the Boola area during August and September and take up their old territories. The male seems to

Birds and their Territories - continued.

arrive first and in the crisp mornings of early spring can be heard calling loudly from the tree-tops, proclaiming his ownership of the place and sometimes taking time off to chase a rival male out of the area, and at this time it is quite easy to locate the various breeding areas by listening for the singing birds. Later however, when the females have arrived and have settled down to nest building they become so unobtrusive that in many cases they may be thought to have left the area, but if regular visits are made later on to check up on their where-about's they may be seen carrying food to the young in the nest.

The study of bird behaviour is perhaps, best regarded as a worthwhile object in itself. There is really no answer to those who ask "what is the purpose of it all?" But there is enjoyment in learning in the field things that may seem insignificant to most people, things that have probably been recorded in the note-books and memories of naturalists many times, but which, because of the amount and variety of such material cannot be found in any books. If we record, photograph or write about the things we see some of our material may be of use in the conservation and understanding of bird-life, and for most of us this may be a better approach than to set out with the object of making some outstanding ornithological discovery.

F.E.Jones.

ORCHIDS THROUGHOUT THE YEAR. The first part of an article by Mrs. Bon Thompson.

One of the pleasures of orchid hunting is that there are species of orchids flowering all the year round. Nobody needs to be told of all the orchids that flower in the Spring between the months of September and November. These include all the Thelymitra in the Valley, all the Diuris, many Greenhoods many Caladenia, the Beard Orchids and others. However even in these months there are some orchids that do not flower every year, for example Hare Orchids (Caladenia menziesii) and others that like a fire over the ground before they flower profusely - Red Beak Orchid (Lyperanthus nigricans).

For the rest of the year I will consider the orchids month by month.

DECEMBER. During this month the Tree Orchid (Sarcochilus australis) and the Cinnamon Bells (Gastrodia sesamoides) will be found in the Morwell National Park and the Elbow Orchid (Spiculaca huntiana) in the Traralgon South Reserve and Seninis Track.

Orchids throughout the Year.- continued.

JANUARY. If lucky you may still find some Elbow Orchids. The Black-tongued Caladenia (Caladenia congesta) flowers now at Seninis Track; here also is the Horned Orchid (Orthoceras strictum). The Tongue Orchids (Cryptostylis sp.) commence flowering now and continue through to March. Some of the Leek Orchids especially the Austral Leek Orchid (Prasophyllum australe) and the Sharp Midge Orchid (P. despectans) commence flowering now. This is also the last month for finding the Onion Orchids (Microtis sp.) and the Large Duck Orchid (Caleana major) which have been flowering since October. The long-flowering Autumn Bird Orchid (Chiloglottis reflexa) commences flowering this month and continues through to August in different areas. Hyacinth Orchids (Dipodium punctatum) will flower from now to May depending on the season. Austral Ladies Tresses (Spiranthes sinensis) flowers this month and next.

FEBRUARY. Apart from the orchids mentioned as flowering from January to March the Bearded Midge Orchid (Prasophyllum morrissii) will commence this month, in damp soils, if the weather is not too dry, and continues flowering until April.

MARCH. This is the month for the Parson's Bands (Eriochilus cuculatus) after the first break in the weather and through to May. We found this orchid flowering on the 1st of March this year in a damp area.

APRIL. The Tiny Greenhood (Pterostylis parviflora) commences blooming now and continues through to September. We have even found it flowering in January in very moist conditions. This is also the month for the rare Winter Greenhood (Pterostylis fischii) as long as the weather is not too dry. It continues through to July.

MAY. The little Mosquitoe (Acianthus exsertus) blooms this month in great profusion and may still be found in August.

JUNE. The Trim Greenhood (Pterostylis concinna) adds its bloom this month and next.

JULY. The Nodding Greenhood (Pterostylis nutans) commences its long flowering season this month through to November and the Tall Greenhood (Pterostylis longifolia) displays its many flowers from now to October. Also both the Helmet Orchids (Corybas dilutatus) and (C. diemenicus) show their little faces now and next month.

AUGUST. In the early part of this month the Gnat Orchid (Acianthus reniformis) flowers and towards the end of the month the Mayfly Orchid (Acianthus caulatus) flowers. Thus during September we have both these orchids flowering at the same time. The first of

Orchids throughout the Year.- continued.

Spring flowering Caladenias (Caladenia alba) flowers this month and the next two. Three more Greenhoods - Blunt Greenhood (Pterostylis curta), the Maroon-hood (P. pedunculata) and the Superb Greenhood (P. grandiflora) join the collection.

These dates are only from our own observations over the last four years and apply to the Latrobe Valley area. Some of the Greenhoods have a long flowering season if in damp conditions, but it is much shorter if conditions are dry. I feel this applies to many orchids that grow over a variety of environments.

Bon Thompson.

THE TASMANIAN BARRED-BANDICOOT. by Mrs. M. Swanink.

A visit to our friends at Hamilton is always very rewarding nature wise. But our visit in the May holidays topped the lot. Unknown to us, we arrived on the evening of a Field Nat's meeting, but were too late and too tired to go. Only our host went, and we did not see him again that night! Next morning at breakfast we learnt that he had come home at 1am and had left again at 6am taking 8 year old Mandy and 5 year old Robert (keen naturalists already) with him. While speaking the party returned, the younger ones very excited. "We've got him! he's in the cage!" What had happened?

The speaker at the previous night's meeting was Mr. Colin Hutchinson, officer of the National Parks Authority. His subject was "mammals". After the meeting a few people stayed behind talking and mentioned the occurrence of a certain species of bandicoot, supposed only to be found in the North of Tasmania and in the Bass Strait Islands. Mr Hutchinson had produced a Cox trap (cage) and the party of enthusiasts had set out to set it in a most likely place. They were to meet again at 6a.m. to check up. And it had been a success! What was the find? It was a long-nosed Perameles gunni with stripes (or bars), wide, but less distinctive than in the other species (P. fasciata). Apart from in Tasmania it only seems to occur now around Hamilton.

It is very docile (Mandy could pat him, or rather her, after a while). She had to be transferred to another cage (as Mr Hutchinson wanted his to use at the Mt. Eccles National Park that night) and was happily eating from her bait - a mixture of honey, peanut butter and oatmeal. Their food is normally grubs and beetles but as they are slightly carnivorous, they would not refuse a mouse. The front legs are shorter and they have an extra double little claw on the hindlegs to clean their fur. The snout is long and slender, the top of the mouth overlapping the bottom jaw considerably and has a red tip on the end of the nose for

The Tasmanian Barred-Bandicoot - continued.

burrowing, to seek the grubs and beetles. But most interesting of all was the fact that she had a joey in her pouch. It was bare, but although only about 1 inch long, it was fully developed. The fact that there was only one indicated that it was her first baby as there are normally 3 or 4. We had the honour of releasing her that night, on the spot where she had been caught, near a box-thorn hedge and we will never forget how we saw her, bewildered but free, in the beam of our torchlight - the young Perameles gunni

Maryke Swanink.

A Short Note on the CRIMSON BERRY by Mrs. E. Lyndon.

Cyathodes juniperina (syn. acerosa), the Crimson Berry, is a Tasmanian shrub, a member of the Heath family, and it reaches our southern coasts, as far as I know, in only a couple of places. At Point Townsend on the Yanakie shore of Corner Inlet, at the beginning of this month, it was a picture. Most of the year it is a nondescript prickly bush but in the early winter the fleshy crimson berries, each as big as a pea, massed in tight bunches, make a wonderful display. Whether the seeds will germinate remains to be seen but it would certainly make a desirable garden shrub.

Winifred Curtis in "The Students Flora of Tasmania" lists 8 species of Cyathodes for Tasmania, 7 being endemic to that island. C. juniperina is the only species to appear on the mainland. It is of interest that there are a further 7 species throughout the world, in New Zealand and in the Hawaii Islands!
(editor)

TWO REMINDERS from the WARRAGUL F.N.C.

No. 1. Each meeting has a place for Identifications - anything that has been found to be difficult to identify, or is uncommon, or of special interest -- bring it along, or a part of it, or a description. Whether or not identification is achieved, something else is -- it is brought to the notice of other members.

No. 2. Please pay subscriptions before the end of this month (June) to ensure continuity of receipt of this journal.

Single Adult: \$1.00 (or more if you like).

Family: \$1.50.

The LATROBE VALLEY NATURALIST

Is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect or branch of natural history are invited from any persons interested and should be addressed to the Honorary Editor, Mr.J.M.Peterson, 14 Barry St., Morwell, Vic. 3840.

Details of Contributing Clubs are as follows:-

LATROBE VALLEY FIELD NATURALISTS CLUB.

Honorary Secretary Mr.S.Belgraver, 179 Lloyd St., Moe.

Meetings Are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions Usually on the Saturday or Sunday after the general meeting, as shown on the program for the year.

WARRAGUL FIELD NATURALISTS CLUB.

Honorary Secretary Mr. J.Brooks, Nobel St., Warragul.

Meetings Are held on the third Friday of each month at the Albert St. State School, Warragul, commencing at 8.00 p.m.

Excursions Are held as arranged, usually two weeks after the monthly general meeting.

TRARALGON FIELD NATURALISTS CLUB.

Honorary Secretary Dr.D.W.Collins, 4 Charles St., Traralgon.

Meetings Are held on the second Friday of each month at the Grey St. State School, Traralgon commencing at 7.30 p.m.

Excursions These are arranged usually for the Sunday following the general meeting.

Each Club welcomes visitors to meetings and excursions.

ISSUE No. 67.

JULY, 1969



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FORTHCOMING EVENTS

-----MEETINGS-----

WARRAGUL F.N.C. ----- Friday 18th July.
Speaker:- Mr. R. Braithwaite.
Subject:- Geology of West Gippsland.

LATROBE VALLEY F.N.C. --- Friday 25th July.
Speaker:- Dr. C. M. Barton - S.E.C. Geologist.
Subject:- Geology of the Latrobe Valley.

SALE F.N.C. ----- Friday 1st August.
Speaker:- Mrs. E. Lyndon - L.V.F.N.C.
Subject:- Plants.

TRARALGON F.N.C. ----- Friday 1st August.
Speaker:- Dr. C. M. Barton - S.E.C. Geologist.
Subject:- Antarctica.

-----EXCURSIONS-----

LATROBE VALLEY F.N.C. --- Saturday 26th July.
Meeting Place:- Birds Gully Reserve - on Morwell to
Thorpedale Road at 10.30 am.
Excursion to:- Narracan area led by Dr. Barton.

TRARALGON F.N.C. ----- Sunday 3rd August.
Meeting place:- Contact Secretary - Dr. Collins.
Excursion to:- Walhalla Road - Botany.

For further information please turn to inside of rear cover.

Dear Fellow Naturalist's,

Firstly a few words about the changes to the layout of our magazine. - Starting with this issue you will find the "Extracts of the L.V.F.N.C. executive meeting" at the end of the magazine. This and "Forthcoming Events", on the inside of the front cover, allows the bulk of the magazine to be prepared at leisure, as well as catering for late information and for changes to these items.

I would also like to take this opportunity to thank contributors for the excellence and variety of their articles. Please keep up this good work. However I am very short of small articles (up to 10 lines). Here is a field where new contributors could "have a go". The things you find interesting will also be of interest to other naturalists, as well as adding to the natural history records of the district. If you have doubts please contact me at Morwell 42129.

Jim Peterson.

EXCURSION TO CAPE PATTERSON.

The morning of May 24th could not have looked less promising as we left Morwell in heavy rain, overcast sky and cold, biting wind for our excursion to Cape Patterson, to see at first-hand the seaweeds, or marine algae as they are properly called, about which we had been told by Mr. B.Fuhrer at our monthly meeting the night before.

However, we were delighted to find a change in the weather at our meeting place, Leongatha, where the sun was shining. Our convoy of seven cars left for Inverloch and then a few miles further on stopped at the western shore of Venus Bay, at Flat Rocks, to inspect the reef for marine algae.

Here we were well rewarded with many varieties which Mr. Fuhrer willingly identified for us. The majority were brown (Phaeophyta), including bull-kelp (Sarcophycus potatorum) and Cystophora paniculata. Some of the reds (Rhodophyta) found were Hypnea sp., Plocanium potagiatum, Porolithalia sp. and Coralena cuveri; and green (Chlorophyta), Calupia cactoides. Of further interest were the flat worms (Diplosolenia johnstoni), sea-stars (Astropecten pectinatus) and tube worms.

We continued on to Cape Patterson for lunch. The enthusiasm for his subject was shown by Mr. Fuhrer and cheerful answers to the questions put to him inspired us all to ignore the cold winds. It was quite a feat to get him to slow up long enough to eat some lunch. Maybe a kind of "Squeeze tube" food as supplied to astronauts would eliminate this problem on future excursions.

At Cape Patterson Mr. Lyndon pointed out the site and surviving relics of the coal wharf from which small ships

loaded coal in the first two decades of this century for transport to the lime kilns at South Walkerville. Among the rocks forming the floor of the Bay he pointed out the remains of a volcanic cone, whilst in the cliffs fossilized tree roots were identified. A glaring example of official vandalism was the site of a car park which, some time ago, was dug out of the cliffs to the beach. It has now defeated its purpose by speeding up the erosion of the site by the water drains formed in the roadway, so that not only the park area but eventually the cliffs at this site will become a scar of mans' ignorance.

Mrs. Lyndon reported a group of Oyster catchers skimming the surface of the Bass Strait but your cub reporter missed the most important part of her observation as to whether they were Pied or Sooty Oyster catchers.

The excursion was very enjoyable and we feel that we have at least begun to acquire some knowledge of yet another aspect of natural life, thanks to the very capable leadership of Mr. Bruce Fuhrer.

L. & R. Eadie.

HAVE YOU NOTICED BERRIES.....?

In the past, most of us have regarded Autumn as the time for fungi, few flowers, autumn leaves and colorful smokey sunsets; but this year, perhaps as the result of the once-in-a-lifetime drought even affecting West Gippsland, followed by a good season. we "found" Berries --- in much greater abundance than usual.

During the Easter holidays when the weather favoured the traveller, the mountains north of Noojee claimed our attention. On the road to Matlock we saw a never forgotten sight --- a berry-laden female bush of the Shing Coprosma (Coprosma nitida). Unlike the more common Prickly Currant-bush (C. quadrifida) - seen everywhere, it seems, on this valley's roadsides - which has few, but very attractive and tiny red berries, this Shining Coprosma bush was packed full of bright rich-orange berries about $\frac{1}{4}$ " in diameter.

Next the Waxberry, though not a true berry but a "fruit-envelope", was very showy along the sheltered roadside approaching the Toorongu River. Snowy-white clusters of berries standing out against shadowed greenery.

A few miles further on, we sighted some bushes of Privet Mock-olive (Notelaea ligustrina) - a medium sized shrub of fairly wide distribution in this corner of Australia, which has several interesting characteristics. Its habit of growth varies from (in a forest) an inconspicuous, straggly plant looking like the remnant of a species, to (in an open favourable situation) a dense, shapely shrub, rather attractive even in the dark green stage of the leaves which are lanceolate, smooth and small, 2-4"

long, $\frac{1}{2}$ " wide, noticeably pointed at both ends. The fresh growth in spring and early summer is soft and has the rich brown to red of the Lilly-pilly.

On this occasion we were delighted to find it was the year for what is undoubtedly the more fascinating side - its fruiting habits. It is very shy in this regard, but when it does bear, its oval berries are really beautiful and varied. In bushes growing side by side, on one tree they may be all pearly white, about $9/16$ " by $7/16$ " in size; another green, pink or red, or a mixture of green, apricot and red; or a tree may have them all a dark blue-grey; or quite inexplicably amongst these various colours one may find an odd super-berry coloured green, white or red (about $9/16$ " by $5/8$ " long amongst the normal $7/16$ " in length).

Not every year do the berries reach maturity. For over 35 years one of us has been keeping a lookout for, in the first place, specimens of the tree which in the last three years we have found in several places; and secondly, a tree bearing fruit. (One solitary tree with red berries and the odd white amongst them, found in March 1960, was smartly swiped by a dozer clearing the side of the forest road).

From observations of a specimen tree grown from white fruit many years ago, it was known that the flowers appeared sometimes in August and perhaps again in February as a result of seasonal conditions. The August flowering set some berries, but only a few of these would develop - perhaps to half mature size and then stop there. Every now and again odd ones would take off and grow to full size green and then ripen white in the autumn. However, if the flowers appeared in February, all the berries dropped off and a new false start was made. The explanation has yet to be determined.

Having succeeded in finding specimens in their natural habitat, and that it is such a worth-while little beauty, is very gratifying.

In the same area, too, the Tasman Flax-lily really showed off with its standards of royal-blue berries. Here also, in contrast with this bright blue was the brilliant red of the Mountain Beard-heath's fruit, the plant in this sub-alpine locality reaching a height of three or perhaps four feet - a stimulating sight with its numerous $1/4$ " scarlet orbs set towards the ends of the branches.

Yet another pleasant surprise scattered around this spot is the Purple Apple-berry with its large blue berries hanging from the stems of this creeper.

The berries of some trees are far from spectacular. For instance, the Tree Geebung has large oval green berries (about $5/8$ " by $1/2$ "); the Mountain Pepper - its leaves having that memory-

fixing hot taste - has small twin-section black berries (about $\frac{1}{4}$ " diameter); the Austral Mulberry produces yellow composite berries, as does the red Native Raspberry, alias Small-leaf Bramble; and the prolific Elderberry Panax with small blue to whitish berries.

One must not forget a little plant that grows up to 6 ft (rarely), and is seen in many places, sometimes by mysterious means appearing in the middle of a grass paddock far from any native environment in distance and time - the white Elderberry having whitish translucent berries.

Similarly persistent, the seeds being carried by birds, is the well known Kangaroo Apple - a very attractive shrub whose purple flowers and large orange berries (especially if it "volunteers" somewhere away from gardeners haunted by the spectre of an inability to keep pace with unlimited babies year after year).

Although the golden berries of the Sweet Pittosporum are its main attraction in this regard, with the fruits of the Banyalla (Pittosporum bicolor), it is only when the two halves of the seed case open out like two wings to reveal the bright red clusters of seeds, that they add their touch of colour to catch the eye of the bush-lover and attract the seed-eating birds of the forest.

Beyond the timber town of Matlock, heading for Aberfeldy, to crown a day filled with the unexpected, we were delighted to see numerous bushes of Rough Coprosma with their spherical red currant-like berries gleaming like rubies in the bright sunshine (about $3/8$ " in Diameter).

These are but a few examples in this interesting and important province of the Field Naturalist's interests, and by taking note of this aspect of Nature, there is little increase in load of attention, energy and time involved. Unlike launching into an entirely new field, e.g. an intensive study of spiders, frogs, or mosquitoes - fruits are an intimate part of Botany, in which most of us are basically interested, and at the same time they can often be aesthetically stimulating.

FOOTNOTE. The term "berry" is used in a popular sense here.

A true Berry is a fleshy fruit without a stone, usually containing many seeds embedded in pulp (e.g. Kangaroo Apple).

A Drupe is a succulent fruit formed from a superior ovary, usually one-seeded. (e.g. Coprosma, Geebung, Mock-olive).

A Drupelet or Drupelet is a small Drupe, usually occurring in groups forming together larger fruits (e.g. Native Raspberry).

Jack Brooks.

THE LEWIN HONEYEATER.

Also called the Yellow-eared Honeyeater, this bird is rather like the White-eared Honeyeater. Mainly olive-green in colour, it has yellow ear patches and an almost white gape. Its gurgling call resembles one made by "White-ears". Having very rarely seen the Lewin in this district, it was particularly exciting, on December 15th, 1968, to see one repeatedly carrying food into a dense Pittosporum beside Rintoull's Creek. Close investigation was delayed until three Grey Currawongs, which perched close overhead at the wrong moment, had moved away. Then no nest was found, but one young bird was seen perched on a bare branch inside the heavy canopy of Pittosporum leaves. Junior was almost tail-less; its colouring much the same as that of its parent. As with many other species of Honeyeaters, the adult tried to attract the intruder away by feigning injury.

On two later visits, which took place on 28th Dec. 1968 and on 1st Jan. 1969, an adult Lewin was again seen gathering insects and feeding them to a youngster in thick scrub only about one hundred feet away from the Pittosporum. By then the young bird, if the same, was almost as large as the adult and flying well.

J. Johnstone.

NOTES FROM ALONG THE TRACK TO ALICE SPRINGS

The road from Port Augusta to Alice Springs provides continual variety and a wealth of botanical interest.

Of the small shrubs the predominating species are salt-bushes. There are over 130 species of these in South Australia grouped into 15 genera and for the amateur botanist, or this particular amateur, it was sufficient to learn to recognise three main groups:-

Those with flat and usually broad leaves with a hard brittle seed case of which the largest genus in S.A. is Atriplex

Those with narrow leaves & the fruiting perianth with appendages, consisting of 2 - 12 spines in Bassia

And a membranous circular wing in Kochia which may appear brilliantly coloured and flowerlike.

The Bassias make themselves painfully felt at many of the camp sites - some have spines which will even penetrate the soles of shoes - but one quickly learns to avoid most of them. All the saltbushes reveal hidden beauty under a hand lens and the silver-blue of Kochia sedifolia (bluebush) provides a beautiful contrast to the red desert sand. Others with green, brown or even red foliage make further variations in the pattern of colour that carpets the ground.

Of the larger shrubs Cassias, Eremophilas (emubushes) and Acacias are the commonest. Only a few of the Cassias were flowering but some could be identified by their foliage. About eight different Eremophilas were collected and named. After the tubular corolla of this genus falls a persistent calyx (which itself may look like a flower) is usually left with the maturing fruit in the centre. This characteristic very often makes identification of the genus possible after the petals fall.

At practically every stop from Port Augusta to Alice Springs Acacia tetragonophylla was seen. This is a prickly customer with spine like phyllodes usually in clusters and globular golden flowerheads. Called "Dead-finish" wattle because if walked into its the "dead-finish"!

From Port Augusta to Lake Hart the predominating tree is Western Myall (Acacia sowdenia), an attractive species with drooping branches. North of here this gradually gives way to increasing Mulga (Acacia aneura), a wattle with short yellow catkins and narrow phyllodes of very varying length and striated with many fine longitudinal veins, sparsely flowered but in a good season can be very floriferous.

Further North near the S.A.- N.T. border isolated specimens of the lovely native poplar (Codonocarpus cotinifolius) (Kodon = bell carpus = fruit: alluding to the shape). This tree resembles the European poplar in its general appearance, hence the common name, but is in fact unrelated to the introduced poplar.

Patches of Desert Oak (Casuarina decaisneana) were also seen in the sandhills near the border - an attractive sheoak with a large cone about the size of a hen's egg or larger. The outstanding tree in this northern area is the Ironwood (Acacia estrophiolata). It is the drooping foliage and shape which make this such a lovely tree, the few flowers seen were small, cream and rather insignificant.

An interesting tree seen near the border and into the Northern Territory was the Corkbark Tree (Hakea lorea) with dark, deeply furrowed bark, gnarled limbs and curiously ancient appearance. Its very long cylindrical leaves, silver when young, and magnificent racemes of yellowish-green flowers are equally striking.

No Eucalypts were seen until about 20 miles north of Coober Pedy in a dry creek bed - these were red gums (E. camaldulensis) with buds of a different shape to the Victorian river red gum, being egg-shaped rather than pointed and given as var. obtusa in "The Buds and Fruits of Eucalypts" - Jacobs.

From this point onwards there were red gums along all the creek beds and nearing the S.A.- N.T. border and beyond an increasing number of mallee eucalypts. Two different species of

these were collected, which up-to-date have not been identified. Within 30 miles of Alice Springs the lovely white trunked Ghost Gums (E. papuana) made their appearance.

This is a very rough outline of the main vegetation seen on the first stage of the trip. The omissions are legion but writing is only possible when "staying put" for a few days for repairs, maintenance and shopping. On the track every moment of the day is filled from the first stirring of the camp at sunrise to the moment we crawl into our sleeping bags at about 9.p.m. and sleep swiftly takes over until another heavenly day breaks.

N.T.Rossiter.

F.N.C.V. VISIT TO LEONGATHA

On the long weekend of April 25/27th a party of members from the mother club came by bus to stay in Leongatha. Local members acted as leaders and the bus was intercepted at Loch on Friday morning and conducted through the Bass Valley, the object being to show the naturalists a sample of the giant earthworms. The quest for these was not very successful as the earth was too dry, but at the well wooded lunching place beside the river near Poowong a pleasant morning was spent looking at ferns, sedges, trees and birds. Rapanea, the Turnipwood, grows tree-size on the fertile little flats and several native creepers, Parsonia, Clematis, Billardiera and Wonga Vine festoon the roadside trees.

In the afternoon the bus resumed its journey out to Nerrena, to the farm of Mr. and Mrs. Brewster. Some people elected to climb Chalmer's Hill. the old volcanic core, to marvel at the wide view of sunlit farmlands and the astonishing meanders of the Tarwin River below. The geologists fossicked in the basalt quarry. Later everyone gathered in the garden at "Nerreman" to enjoy afternoon tea.

That evening the Leongathans entertained the visitors in a local hall with slides, natural history exhibits, tea and talk.

On Saturday a full day trip to Walkerville, taking in Cape Liptrap light and Venus Bay on the Tarwin Estuary, showed them something of the beautiful coastal country. The homeward journey on Sunday also followed the beach with a stop at Inverloch to botanise at Screw Creek. This area is notable for its White Mangroves, Sea Lavender, and Spartina, an introduced salt water grass planted to reclaim shallow estuaries. A further halt for lunch at Cape Paterson and a walk on the reef at Kilcunda rounded off a full weekend.

A minor mystery was cleared up later at the Herbarium when a small greenhood that grows along the Inverloch shore was identified as Pterostylis alveata, which so far, has been reported in very few places. The Alan Morrisons, who spent the week at

Walkerville, rediscovered the Small Fork-fern, Tmesipteris parva, in one of the steep gullies running down to the beach. It was recorded from the locality many years ago by the late Mrs. Rossiter of Hedley.

E. Lyndon.

COLLECTION & PRESERVATION OF HERBARIUM MATERIAL.

Published with the kind permission of the National Herbarium of Victoria.

There are three points to consider when collecting plant material for permanent retention in an herbarium collection:-

- A. Selection of the material to be collected.
- B. Preservation of the material collected.
- C. Storage.

A. SELECTION of MATERIAL.

Although fragmentary pieces of a plant may sometimes be adequate for determination, such a fragment has no value in a permanent collection kept for comparative purposes. A good herbarium specimen should, in general, include as many parts of the parent plant as it is possible to collect at the one time. Therefore:-

1. Collect the whole plant if it is small, pulling it up by the roots, except for orchids where the bulbs should be left to produce new flowers in future seasons, and for known rare or localised plants.

With larger plants such as shrubs and trees, and with those that spread over large areas by means of runners and rhizomes, it is impossible and unnecessary to collect the whole plant. In these cases:-

2. Whenever possible select a portion of plant bearing foliage, flowers, buds and fruits. Although flowers and fruits are of prime importance, foliage is also necessary. Where foliage varies in size, shape, or texture on the one plant, this variation should be demonstrated by the material selected.

3. Make brief notes on the habit of the plant, e.g., "Tree 15ft. high, branches spreading, leaves drooping." With species of Eucalyptus a note on the bark should be included as this is an important feature, e.g., "bark smooth, cream coloured." or "bark thick, black, deeply fissured."

4. Always record the locality and date of collection, the collector's name, and the situation in which the plant was growing, e.g., "In saturated mud at edge of swamp." Some plants have definite habitat preferences.

(to be continued in Issue No. 68.)

JACARANDA WILDFLOWER GUIDES.

An excellent little series of wildflower books is appearing at present, published by Jacaranda press. Price is, I think, about \$1.75 per volume, and each contains full page colour pictures of 50 species of wildflowers with a page of letterpress opposite containing a description of the species, common and technical names, habitat, size, flowering season, general notes and derivation of the name. Fifty species may not seem many, but they are always the conspicuous species which people want to know, and provide "landmarks" in the world of Australian Wildflowers from which those who wish can go farther.

The latest to be published is WILDFLOWERS of TASMANIA, letterpress by T.E.Burns, colour photographs by H.J.King. Mr. Burns is a thorough botanist, carefully accurate and a pleasant writer, while Mr. King's wildflower photography is known all over Tasmania (and much further afield). Members of the L.V.F.N.C. have seen some of his work and know of its high standard.

This is the fifth volume in the Jacaranda series. Four more are in preparation.

John Galbraith.

YANAKIE RUN

Part of a press release from the National Parks Authority.

An area of 17,900 acres in the Parish of Yanakie South was reserved under the Land Act as a site for a national park on 14th January 1969, and notified in the Government Gazette of 22nd January. The National Parks Authority has been appointed a committee of management for the area. In due course, legislation is to be prepared to include the area in the Wilsons Promontory National Park.

Mr. A.C.Hollisen of Fish Creek (who had been the Land Department Ranger at Yanakie for over 40 years) continued as Officer-in-Charge of Yanakie until the National Parks Authority was able to appoint a new Officer. Mr. Percy Gilbert of Foster has now been appointed to this position. Agistment of cattle will continue on the Run after the inclusion of the area in the Wilsons Promontory National Park. Agistment is now carried out under licences granted by the National Parks Authority.

Special attention will be devoted by the National Parks Authority in association with the Forests Commission, to the formulation of a comprehensive fire protection plan for the area and considerable progress has already been made in the creation of a green firebreak across the Yanakie Isthmus.

Editor

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING - held on Tuesday 1st July at the home of Mr. and Mrs. Homann at Moe.

CONSERVATION OF THE KENTBRUCK HEATHLAND AREA

Replies have been received from two members of parliament as a result of our club's protest to the proposed alienation of this area. The replies came from Sir Herbert Hyland, M.L.A. and Mr. May, M.L.C. - each indicating their support and advising that the Country Party opposed the opening of this area as well as the Little Desert area. Copies of these letters will be forwarded to the Western Victorian Conservation Committee and will, without doubt, assist them in their fight to save Kentbruck.

POSTMASTER GENERALS DEPARTMENT.

A letter of thanks was received from the above Department as a result of our clubs praise of the bird motif on the latest country telephone directories. The letter further stated that our interest was much appreciated.

PHOTOFLORA - 1970.

Confirmation of the date of the screening of Photoflora was received - Friday the 14th March 1970.

LYMEPIT ROAD INVESTIGATION.

As a result of the excursion of 28th of June the list of plants for the area now stands at 155 species, including a wonderful find by Mr. Thompson - the Prawn or Tailed Greenhood (Pterostylis pedoglossa) which is a new record for the Valley.

The next investigation will be during August.

BUSHY CLUBMOSS.

An area containing the Bushy Clubmoss (Lycopodium deuterodensum) along the Old Port Road in the Willung South area has been brought to the attention of the club. Ownership of land and potentials of preserving the moss are being investigated.

NEXT EXECUTIVE MEETING.

Will be held on Tuesday 29th July at the home of Mr. and Mrs. Eadie, 108 Helen St., Morwell.

LATROBE VALLEY CLUB MEMBERS Please note:-

If there is a cross in the adjacent square it will mean that our records show you are no longer financial. Our Treasurer, Mrs. L.Eadie, should be contacted at the July meeting if you wish your name to remain on our mailing list



The LATROBE VALLEY NATURALIST

Is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect or branch of natural history are invited from any persons interested and should be addressed to the Honorary Editor, Mr.J.M.Peterson, 14 Barry St., Morwell, Vic. 3840.

Details of Contributing Clubs are as follows:-

LATROBE VALLEY FIELD NATURALISTS CLUB.

Honorary Secretary Mr.S.Belgraver, 179 Lloyd St., Moe.

Meetings Are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m.

Excursions Usually on the Saturday or Sunday after the general meeting, as shown on the program for the year.

WARRAGUL FIELD NATURALISTS CLUB.

Honorary Secretary Mr. J.Brooks, Nobel St., Warragul.

Meetings Are held on the third Friday of each month at the Albert St. State School, Warragul, commencing at 8.00 p.m.

Excursions Are held as arranged, usually two weeks after the monthly general meeting.

TRARALGON FIELD NATURALISTS CLUB.

Honorary Secretary Dr.D.W.Collins, 4 Charles St., Traralgon.

Meetings Are held on the second Friday of each month at the Grey St. State School, Traralgon commencing at 7.30 p.m.

Excursions These are arranged usually for the Sunday following the general meeting.

Each Club welcomes visitors to meetings and excursions.

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ISSUE No. 68.

AUGUST, 1969



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LATROBE VALLEY NATURALIST

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FORTHCOMING EVENTS.

MEETINGS

WARRAGUL F.N.C. ----- Friday 15th August.

Speaker:- Members night.

Subject:- Acacias.

LATROBE VALLEY F.N.C. --- Friday 22nd August.

Speaker:- Mr. Ken Bryant.

Subject:- Astronomy.

SALE F.N.C. ----- Friday 5th September.

Speaker:- Mr. B.Tunbridge, S.R.O. of Fish & Wildlife.

Subject:- Freshwater fisheries research.

TRARALGON F.N.C. ----- Friday 12th September.

Speaker:- Members night

Subject:- Annual meeting

EXCURSIONS

WARRAGUL F.N.C. ----- Sunday 17th August.

Meeting Place:- Contact Secretary.

Excursion to:- Erica district - geology.

LATROBE VALLEY F.N.C. --- Saturday 23rd August.

Meeting Place:- Entrance gate - 11am.

Excursion to:- Healesville Wildlife Sanctuary.

N.B. Private transport only.

SALE F.N.C. ----- Contact Secretary for details.

TRARALGON F.N.C. ----- Contact Secretary for details.

(For further information please turn to the inside of rear cover)

EXCURSION TO LIME PIT ROAD - 28/6/69.

Our excursion to Lime Pit Road was after a heavy frost which usually heralds a good day. On our arrival at the Rosedale railway crossing there were three club cars and one visitor from Bendigo. Three cars proceeded to the area and the other waited for late-comers. Those who waited saw a good demonstration of a grey goshawk getting its dinner, or part thereof; the bird hovered motionless for some time then dropped like a stone into a patch of dry grass and took off again with some small animal, possibly a mouse.

At our first stop we had a very interesting two hours. The area had been burnt and the plants seemed to appreciate the conditions. By then it was 12.30 and everyone was getting hungry. After dinner we moved on to the sanctuary area where two members went looking for a swamp. They found that the water was the colour of weak tea but, apart from rushes, there was nothing to report. During their wanders they found the remains of a very old wire fence - this fence could well have been the boundary of an early selection.

The plants that were in flower included white heath, red correa and sweet wattle. The bird life in the area was scarce - a few thrushes, flame robins, a grey fantail and a few smaller species flitting around the undergrowth, probably wrens.

Our next move was to Chessum's Road where the bulldozers had been busy since our last excursion - there had been a lot of clearing done. We moved further up the road but the only plant we had not seen before was a hakea. We then returned to the cars for a cup of tea and a summary of the day's work. Our bird list had improved slightly with the appearance of a white eared honeyeater, odd tree creepers and one wedge tailed eagle. Our botanical list was increased by the finding of six new orchids and eighteen other plants to now read 155 species.

The afternoon was well punctuated with the roar of passing trucks and at 4 o'clock we called it a day. On the return home we sighted a mob of 30 or 40 grey kangaroos on the headlands of the pines. Further down the road we saw a family of white winged choughs and the usual white cockies. The most interesting area was the first area we stopped at, an area which had been lightly burnt possibly twelve to eighteen months ago.

Tom Moretti.

Recently there has been quite a lot of attention given to the conservation of the Great Barrier Reef. An indication of its great value is demonstrated by the fact that 400 species of fish have been recorded around one island - Heron Island. This is more than is known for the entire North Atlantic Ocean.

J.M.P.

COLOURFUL EUCALYPTS.

Seasonal conditions may have an effect on the colours to be seen in trees of the forest, no less than the flowering plants of the grasslands or mountain herbfields.

On a trip that four of us took to the Snowy Mountains following on from the camp at Lankey's Plain last January, the highlight was, of course, the day spent amongst the wildflowers on Kosciusko. Also a delight were the floral displays along the roadside at lesser heights, and on the many snow plains we explored. Nor can one forget the sheets of bluebells around our camp at Sawyer's Hill above Kiandra.

However during three days travel, chiefly above 3000 feet, and extending most of the way from Khancoban to Ingebyra, we saw nothing that could surpass for brilliance the colours on the trunks of the gum trees. In the greatest profusion were trees with vivid red trunks, or scarlet patches offset by pastel shades on the same tree. This display we enjoyed for miles without a break, particularly at elevations around 4000 feet. For this feast of colour alone, one felt amply repaid for making the trip.

The well known Candlebark Gum (Eucalyptus rubida) is well named for the striking patches of red in the bark before it is shed in late summer or autumn, and particularly when growing above about the 2500 foot level.

In cooler situations around 3000 feet, the closely related Mountain Gum (Eucalyptus dalrympleana) often replaces the Candlebark. It is a much taller and straighter forest tree. This is the species that was so colourful for the greater part of our trip, though the Candlebarks were also beautiful on the lower parts of the tableland.

A feature of the Mountain Gum is the bright green of its foliage; so much so that it may be picked out on a distant hillside, whilst the Candlebark Gums bear a canopy of dull green, sometimes with coppery shades.

On the Wulgulmerang tableland last summer, with good rains at Christmas, following the drought there was a remarkable rejuvenation in the trees, and many Candlebarks became clothed in a delicate shade of blue-green young leaves in February, whilst their trunks were a more vivid red than usual. In many cases their bark didn't peel off till the end of March, some brilliant reds remaining even longer, whereas the Mountain Gums, which were at their best on our trip, had shed their bright colours here by February.

A very different colourful tree of the poorer soils is the Brittle Gum (Eucalyptus mannifera), which may have stark white trunks, but more often blotched with patches of steel-grey.

Sometimes green and reds occur, particularly where the white powdery bloom may be brushed from the trunk by a nearby bush moving to and fro in the wind.

Certainly such a display amongst the gums, as we enjoyed on our tour, added charm to the mountain scene.

Keith Rogers.

A HAPPY FAMILY - Grey-crowned Babblers.

Over the last two years I have had the opportunity of observing a group of Grey-crowned Babblers in Northern Victoria near Nagambie.

There always seems to be six to eight birds in the party and though they don't appear to be timid are difficult to study because they are never still.

About the size of a blackbird, mostly greyish-brown in colour with white throat, breast, crown and tail-tip and a grey line along the top of the head which is easily seen as they search for insects under the bark of trees or on the ground with their long curved bills.

They are most interesting and entertaining birds with a great variety of calls and antics; and a very characteristic perch is with body nearly horizontal and the tail slightly elevated and fanned, making the white band on the tip more striking.

I think of them as frivolous birds as apart from their happy-go-lucky behaviour they seem to be forever building nests without a serious thought of parenthood. Over the space of a season they erected four untidy looking structures, which by courtesy I call nests, composed of course twigs to which they were always busily adding but never did I see any of them sitting on the nest or any signs of the production of young.

One of the nests, built in a young oak tree was sufficiently low and the tree sufficiently strong to enable me to climb high enough to see the top of the nest. It was completely flat, with a layer of grass over the twigs suggesting some provision of home comfort for potential off-spring but the absence of feathers or droppings made it appear unlikely that it had ever been used.

Mysterfied by their seemingly irresponsible attitude to the continuation of their species I sought enlightenment in Leach's "Bird-book". Here I found that "Babblers sometimes make six to eight nests, laying only in one. The others are said to be shelter nests or possibly play nests or possibly to delude the Schoolboy".

After two years acquaintanceship with this happy family I think they would be quite capable of perpetuating such a

joke and I am glad of the assurance that they do make arrangements for the preservation of their kind.

(The real nest has been described to me as being dome-shaped with a side entrance and Cayley describes it as having "a narrow spout-like entrance". I have not seen anything fitting either of these descriptions so perhaps someone who has could elaborate.)

N.T.Rossiter.

ORCHIDS OF THE LATROBE VALLEY

The following list is supplementary to a list which was published in April 1966 in Issue No.29 of the "Latrobe Valley Naturalist".

It will give new locations for many species included in the previous list and adds ten new species bringing the total number of species recently sighted in the "Valley" to 74.

New species are preceded with a mark thus +

Thelymitra

T. grandiflora	Great Sun Orchid	Gormandale Reserve.
T. pauciflora	Slender Sun Orchid	Shingle Creek Reserve. Tyers Gorge.
T. ixioides	Dotted Sun Orchid	A.P.M. Reserve Koornalla.
T. media	Tall Sun Orchid	Mirboo Nth. Rd. Darlimurla.
T. carnea	Pink Sun Orchid	Seninis Track.
T. flexuosa	Twisted Sun Orchid	Seninis Track.

Calochilus

+ C. campestris	Copper Beard	Whitelaws Tk. T'gon Sth.
C. robertsonii	Purplish Beard	Clarks Rd. Hazelwood Nth.

Diuris

D. longifolia	Wallflower Orchid	Traralgon Sth Reserve.
+ D. maculata	Leopard Orchid	Near T'gon Sth Reserve.
D. sulphurea	Tiger Orchid	A.P.M. Reserve Koornalla.
D. pedunculata	Golden Moth Or.	Near T'gon Sth Reserve.

Orthoceras

O. strictum	Horned Orchid	Seninis Track.
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Prasophyllum

P. despectans	Sharp Midge Or.	Seninis Track
+ P. morrissii	Bearded Midge	Callignee Rd.
+ P. archeri	Variable Midge	Seninis Track
+ P. brevilabre	Short-lipped Leek	Callignee Sth Rd.
P. australe	Austral Leek	Seninis Track.
+ P. frenchii	Slatey Leek	Cowwarr

Caleana

C. major	Large Duck Orchid	A.P.M. Reserve Koornalla.
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Spiculaea

S. huntiana	Elbow Orchid	Traralgon Sth Reserve. Tyers Gorge. Seninis Track.
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Chiloglottis

C. gunnii	Common Bird Or.	Shingle Creek Reserve.
C. reflexa	Autumn Bird	Traralgon Sth Reserve.

Eriochilus

E. cucullatus	Parson's Bands	Tyers Gorge. Seninis Track.
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Burnettia

+ B. cuneata	Lizard Orchid	Seninis Track.
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Caladenia

C. menziesii	Hare Orchid	Callignee Sth Rd.
C. dilatata	Green-comb Spider	Traralgon Sth Reserve
C. alba	White Caladenia	Seninis Track.
Var. picta	" "	A.P.M. Reserve Koornalla.
C. aurantiaca	Orange-tip Caladenia	Seninis Track.
C. carnea	Pink Fingers	Traralgon Sth Reserve. Tyers Gorge.
+ C. congesta	Black-tongued Cal.	Seninis Track.
C. angustata	Musk Caladenia	Tyers Gorge.
+ C. iridescens	Bronze Caladenia	Traralgon Sth Reserve. Tyers Gorge.

Glossodia

G. major	Wax-lip Orchid	Traralgon Sth Reserve. Seninis Track.
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Cryptostylis

C. subulata.	Large Tongue Or.	Whitelaw's Rd T'gon Sth.
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Pterostylis

P. parviflora	Tiny Greenhood	Traralgon Sth Reserve. Tyers Gorge.
P. falcata	Sickle Greenhood	Traralgon Sth Reserve. Shingle Creek Reserve.
P. alpina	Alpine Greenhood	Shingle Creek Reserve.
P. acuminata	Sharp Greenhood	Shingle Creek Reserve.
P. grandiflora	Cobra Greenhood	Glengarry Nth.
+ P. pedoglossa	Prawn Greenhood	Rosedale South.
P. pedunculata	Maroon-hood	Shingle Creek Reserve.
P. nutans	Nodding Greenhood	Traralgon Sth Reserve. Shingle Creek Reserve.
P. curta	Blunt Greenhood	Shingle Creek Reserve.
P. longifolia	Tall Greenhood	Shingle Creek Reserve.
P. pusilla	Ruddy-hood	Clarks Rd. Hazelwood Nth.

Gastrodia

G. sesamoides	Cinnamon Bells	Morwell National Park Seninis Track.
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Spiranthes

S. sinensis	Austral Ladies Tresses	Lime Pit Rd.
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Dipodium

D. punctatum	Hyacinth Orchid	Traralgon Sth Reserve. Tyers Gorge. Seninis Track.
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ALONG THE STUART HIGHWAY FROM ALICE SPRINGS TO DARWIN.

In camp at Howard Springs, 15 miles south of Darwin.

In memory one thinks of the vegetation changing dramatically at Alice Springs from saltbush and mulga to grasses, eucalypts and an ever increasing number of unfamiliar trees and shrubs as one travels northward. In actual fact the change must be gradual and referring to notes find that mulga (Acacia aneura) and ironwood (Acacia estrophiolata) are still the predominant trees but the saltbush has given place to knee-high grass - pale gold in the early morning and in lightly timbered areas and the strong sunlight a shimmering silver sea.

The attractive Grevillea agrifolia was first seen at Primrose Gap about 70 miles north of Alice. This is a shrub with a pale grey, holly-like shaped leaf and flowers which from a distance look like a cluster of red berries. Eucalyptus terminalis was first seen here - its distinguishing feature a dark tessellated bark, urn-shaped fruits about 1" in length and approximately $\frac{1}{2}$ " long buds with a tiny cap. Trees which look like Ghost-gums are still occasionally seen. There must be several different species of eucalypt which are called Ghost-gum by the layman. At least three species were seen which had the snow-white trunk and branches usually associated with this common name. Baron Von Mueller gave this descriptive title to E. papuana which has dead-white perfectly smooth trunk and branches, drooping, thin, bright green leaves, small egg-shaped buds and fruits like little bells $\frac{1}{2}$ " by $\frac{1}{2}$ " with deeply enclosed valves. Blakely gives Var. aparreringi of E. papuana as the "Ghost Gumtree" "the surface covered with a fine white substance which retards excessive evaporation from the chlorophyll laden bark beneath and which is used by the blacks as a powder or pigment in various ways."

One hundred and seventy miles north of Alice Springs a number of specimens of a Mallee gum with very large ridged buds and fruits was first seen and identified as Eucalyptus pachyphylla. And now new species of wattles were seen every day. One very common acacia in bloom had a short trunk and completely horizontal branches forming a circular "table" from six inches to several feet in height. An abundance of bright yellow catkins make this a very attractive species apart from the unusual habit of growth. (It was later identified as Acacia hillii).

Another interesting wattle from near Elliot (about midway between Alice Springs and Darwin) northwards to Darwin is Acacia dimidiata. A shrub or small tree with large, heavy asymmetrical leaves, the three prominent veins of which converge into one at one side of the leaf near the petiole. Just before Elliot the first Bauhinias (bean trees) were seen and continued along the route to Darwin - a tree related to the Cassias with dark twisted trunk and branches and leaves in pairs looking like small green

butterflies. The flower is red with ten long protruding stamens, the pod flat and broad - a rather sombre tree unless one happens to see one when the big pods are wine-red as we did and it stopped us in our tracks to gaze in admiration.

Forty miles north of Elliot a small silver-leafed tree was first seen and from there right through to Katherine the dark slender branches of this tree made a delicate tracery amongst its sparse silver foliage. Occurring with it very often is the pinkish-mauve flowered Calytrix microphylla in full blossom, making a lovely colour contrast. This silver-leafed tree has winged fruits and has been identified as a Terminalia, probably canescens. Many beautiful hibiscus grow near the road, some yellow flowered, others mauve or pink.

About ten miles south of Larrimah the salmon gums started to appear. There are probably as many different species of eucalypt called salmon gum by the layman as there are species called ghost gums. Blakely in "Key to the Eucalypts" quotes Dr. Jensen as describing Eucalyptus platyphylla as Poplar Gum and variety tintinnans of this as Salmon Gum. He describes these two as "similar in colour of bark, shape of leaf and to the layman in the shape of the fruit but the Poplar Gum is a large tree growing on moist flats with leaves and fruits invariably treble the size of the Salmon Gum, which is crooked, small and mallee-like in habit." Both these varieties were seen. Their old bark which is a pale pinkish-grey had just been shed leaving perfectly smooth trunks and limbs of a bright tan colour; presumably this gradually fades to pale grey, though there is no mention of this by Blakely. Euc. platyphylla has leaves very like a poplar hence the common name. Those of variety tintinnans are smaller and not so poplar like. In W.A. Eucalyptus salmonophloia is called Salmon Gum. Two other striking eucalypts are Euc. phoenicea and Euc. miniata seen from some miles south of Katherine onwards. Both these species have bright orange flowers, those of Euc. miniata (rather confusingly) being larger (less "mini") than Euc. phoenicea! They differ in bark, leaf, buds and fruit shape but both are magnificent when seen in full bloom.

One of the most beautiful grevilleas seen was Grevillea pteridifolia. It is common between Katherine and Darwin - a graceful shrub or small tree with lovely long racemes of golden orange flowers and the silvery foliage is as attractive as the blossom.

The first pandanus were observed at Warlock Ponds near the site of the old Elsey homestead, a few miles south of Mataranka. This is a palm-like plant with a spiral twist to the leaf-stem. True palms, of the Livistona genus were seen at Mataranka.

It is difficult to decide what to include in such a wealth of material. The few plants mentioned here are either very common species seen over a wide area or have some striking feature, usually both. Many of those which went unobserved may have been

noted if they had been in flower, just as Calytrix microphylla which delighted us with its mauve flowers for hundreds of miles might have gone unidentified if not in bloom.

This writing is being finished amid a cacophony of bird calls, even a bird-lover couldn't call them harmonious. The forty nankeen night herons I counted this morning by the spring have just been disturbed and are protesting with an angry clucking; the blue-winged kookaburras are making a variety of fearsome noises, only one of which could be said to resemble a laugh, and the corellas join in with their raucous cries.

And now the disturbance is over and peace descends again on a perfect tropical night.

N.T.Rossiter.

THE ROSEDALE CANOE TREE.

Some years ago, following a Club excursion to Dutson area, mention was made in the L.V.Naturalist of this tree, then enclosed in the paddock close by the road. A suggestion was made (by me) to the Rosedale Council that the tree be given some sort of protection and perhaps a plaque to tell passers by just what the scar meant. No action was taken, but shortly afterwards the road was widened and the new fence put behind the tree. This may be considered protection enough.

The same suggestion, made to Bairnsdale Shire in regard to a similarly marked tree in the camping park at Eagle Point, seems to have been more successful. I have not had the opportunity to see it myself, but learned from friends who saw mention of it in the local paper, that the tree was at once enclosed and labelled. We have so few such relics left of the aboriginal tribes that all efforts should be made by naturalist or historic societies to see that they are preserved for as long as possible, especially where they are so easily accessible.

As to the age of the red gums, those old warriors on the farm where I grew up near the shores of Lake Wellington seem exactly the same today as when I was first old enough to know them. Human lifetimes mean nothing to them.

A Seaspray resident has spoken to me of a box tree bearing a large canoe scar, somewhere in the vicinity of Lake Reeve on the Dutson Downs Sewerage Farm. It was the only tree so marked that he had ever seen in his years of working in that bush. He had pointed it out to the previous manager and asked me to mention it to Mr. Bramich at the time of our last visit there, asking that it be spared in any clearing operations.

E. Lyndon.

COLLECTION & PRESERVATION OF HERBARIUM MATERIAL.

Continued from Page 8 of Issue No.67. Published with the kind permission of the National Herbarium of Victoria.

B. PRESERVATION of MATERIAL.

Collected plant specimens are permanently preserved by pressing and drying.

PRESSING.

To press a plant, place between sheets of newspaper and apply an even, medium pressure. Excessive pressure will burst and squash soft parts, while inadequate pressure allows the material to wilt, wrinkle and curl within the papers.

Before applying pressure smooth out the plants parts on the sheet of paper in order to display them to the best advantage. If specimens are too bulky, trim off any excess foliage, or hard thorny branches, from the back and front of the specimen so that it will lie as flat as possible. Delicate parts of a specimen can be well-displayed if foam plastic is placed over them while drying. This exerts a uniform pressure, and even thin petals will dry flat and in shape. A piece of tissue paper or newspaper placed between the delicate portion and the foam plastic will prevent the specimen being marked. Herbaceous and woody specimens should be kept apart during pressing, in order to avoid damaging the more delicate specimens.

Specimens are usually pressed in a plant press. This consists of two light but firm boards containing several inches of flattened newspaper between them, and tied with two cords or straps. The latter are adjusted to increase or decrease pressure on the specimens. Since it is often impracticable to carry a plant press and papers into the field, a substitute method is to place specimens temporarily in a plastic bag and to transfer them to the papers as soon as base camp is reached. The length of time specimens can remain within the bag without deteriorating varies. Delicate herbaceous plants may wilt within 5 minutes on a hot summer's day, whereas woody specimens may last a day or two.

DRYING.

Pressed plants should be dried reasonably rapidly to prevent the growth of moulds, but not too rapidly as this renders the specimens brittle and easily damaged. The average plant held in an herbarium press and placed in a drying box is fully pressed and dried within 4-5 days of picking. When no drying box is available, drying is aided by placing the plant press in the sun, or by applying an artificial heat source beneath the press. Ideally, the press should be kept warm to the touch, but not hot. Pressing papers become quite damp as they absorb moisture from the specimens within, and in most cases should be changed every 24 hours. Since it is advisable not to attempt to move a specimen from the paper while it is drying, it is usual to include empty sheets of newspaper

between those containing the specimens. These empty sheets are replaced by dry ones which continually draw moisture from the damp sheet enclosing the specimen. The latter sheet remains unchanged until the specimen is dry.

Fading of flower colour, or discolouring of flowers and foliage, cannot always be avoided. The majority of plants will retain their original colours to a lesser or greater degree if carefully dried. Flower colour should be noted at the time of collection and included in the data written on the specimen label.

(To be continued in Issue No.69.)

EXTRACTS FROM THE L.V.F.N.C. EXECUTIVE MEETING - held on Tuesday 29th July at the home of Mr. and Mrs Eadie.

TREE PLANTING BY THE COUNTRY ROADS BOARD.

A letter was received from the C.R.B. stressing that they were very conscious of the need to preserve the roadside flora in order to beautify the landscape. To further improve the landscape they were planting 50,000 new trees each year.

BIRDS GULLY RESERVE.

A letter will be forwarded to the Morwell Shire Council point out that the removal of trees and the filling of the gully to remove some of the bends from the Morwell-Thorpedale Road could have a serious effect on the conservation of the Birds Gully Reserve.

LATROBE VALLEY NATURALIST

A detailed check of the costs of the magazine will be made and a further check will be made the costs of providing the "flying duck" emblem on the next order of front covers.

HEALESVILLE EXCURSION

In view of the apparent insufficient numbers to fill a bus and the nearness of the excursion it was decided not to hire a bus and to rely on private transport - assembling at the entrance gate to the Sanctuary.

WEEKEND CAMPOUT

A number of suggestions have been made as to where the October campout could be held. These will be presented at the next meeting for members to decide.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 19th of August at the home of Mr. and Mrs. McElroy., 35 Latrobe Rd., Morwell.

The editor would like to hear from any member who has an interest in insects and who would like to learn more of the subject.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825.

Meetings commence at 7.30pm and are held at the
Yallourn State School, Y. LLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302.
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
Sale Technical School, SALE.

TRARALGON F.N.C.

Honorary Secretary:- Dr. D. W. Collins.,
4 Charles St.,
Traralgon. 3844. Tel. T'gon 72593

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3820. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official
publication of the Latrobe Valley Field Naturalists' Club.
Contributions on any aspect or branch of natural history are
invited from members of all clubs and should be addressed to:-
Honorary Editor (J.M. Peterson)
14 Barry St.,
Morwell. 3840. Tel. Morwell 42129.

ISSUE No. 69.

SEPTEMBER, 1969



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LATROBE VALLEY NATURALIST

REGISTERED AT THE GENERAL POST
OFFICE MELBOURNE FOR TRANSMISSION
BY POST AS A PERIODICAL.

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FORTHCOMING EVENTS.

-----MEETINGS-----

WARRAGUL F.N.C. -----Friday 19th September.

Speaker:- Mr Frank Jones.

Subject:- Birds.

LATROBE VALLEY F.N.C. -----Friday 26th September.

Speaker:- Miss Jean Galbraith.

Subject:- "A Pattern of Wildflowers".

SALE F.N.C. -----Friday 3rd October

Speaker:- Miss Jean Galbraith.

Subject:- "Wildflowers of Wilson's Promontory".

TRARALGON F.N.C.

-----EXCURSIONS-----

WARRAGUL F.N.C.-----Contact Secretary for details

LATROBE VALLEY F.N.C. -----Saturday 27th September

Meeting Place:- Contact Secretary

Excursion to:- Gellions Run near Yarram

SALE F.N.C. -----Contact Secretary for details.

TRARALGON F.N.C.-----Contact Secretary for details.

(For further information of these clubs please turn to the
inside of the rear cover).

A LITTLE BIRD HAS TOLD ME.

Some years ago a road deviation in the heart of Leongatha made vacant an area of about 1½ acres of land. Permission was granted to our well known member, Mrs. Ellen Lyndon, by the local council to grow some native plants on this land.

The area was ploughed by Don Lyndon and work commenced. Four years work - virtually a lone effort by Mrs Lyndon - has transformed this land into a delightful park with lawns and an acre of native plants.

Congratulations Ellen Lyndon on this tremendous task and although you are not in agreement we completely agree with the recent Woorayl Shire's declaration - naming this area LYNDON PARK.

Editor.

MR. HYETT'S ADDRESS - 27/6/69.

Mr. Jack Hyett is a lecturer at the Melbourne Teachers' College and author of the books "Bushman's Year" and "Bushman's Harvest". His talk was interesting, informative and amusing. Each slide had an interesting anecdote about either the object of the slide or the photographing of it. He commenced with mammals including the platypus which can be seen more easily in the early morning and evening; the tiger cat with its appetite for poultry; the possums and gliders with their love of honey; wallabies and kangaroos who are difficult to feed when young; some rats and a mouse.

Next Mr. Hyett showed slides of birds - Grebes, Cormorants, the Cape Barron Goose that posed for its photo, the rare Magpie Geese, the Spurwing Plover with the yellow on its head. The Pelicans that nested last year for the first time on Lake Hindmarsh because of suitable feed and water level. A Stormy Petrel, blown inland during a storm; the Sooty Oyster Catcher and the shells they had broken open; a beautiful close up of a Wedge Tail Eagle and slides of some owls. The Fairy Martins who blocked up a nest on an unwelcome visitor and many more small birds with amusing tales.

Mr. Hyett had some slides of reptiles - the stumpy tailed lizard, similar at both ends; the blue-tongued lizard; the legless lizard (more like a snake); the white-lipped snake and the golden-bell frog with its unusual call. Finally Mr. Hyett showed the Painted Acacia Moth, the Painted Lady and the Sword - Grass-Brown and contrary to usual practice he finished with a sunrise.

Everybody present was disappointed when the talk came to an end. Appreciation was shown in the usual way.

Bon Thompson.

DR. BARTON'S ADDRESS ON LATROBE VALLEY COAL SEAMS.

On the night of 25/7/69 Dr. Barton explained the geological history of the Latrobe Valley coal seams, commencing with the period about 150 million years ago when the Latrobe Valley was a huge delta. He explained how the valley was formed by two big faults - one where the Strezlecki Ranges are now and the other near the ranges north of Yallourn. The floor of this valley was covered with a layer of sediment and then larva. Streams meandered over the valley causing another layer of sediment to be deposited.

Conditions became suitable for plant growth on the sediment. Some of the plants were similar to the Kauri pines, banksias and celery-top pines of today but not the same. These plants grew, fell, rotted and decayed forming a layer of peat. The rate of subsidence of the land was exactly the same as the rate of build up of the layers. This peat later became the first coal seam. For some reason - perhaps a change in climate - the plant life was all killed and the streams took over again depositing another layer of sediment.

This process was repeated until four layers of peat separated by layers of sediment were deposited. Finally this repetition was halted, but the subsidence continued. More faults appeared and due to the fact that the coal and sedimentary seams were comparatively new (geologically speaking) folding occurred with the layers bending rather than breaking. Erosion by streams, weather, etc. flattened the valley surface once more, causing different layers to be exposed in different areas, depending on the height of the folding. Finally a layer of overburden was deposited over the top. This explained why the coal at Yallourn and Morwell have different characteristics as Yallourn is the later coal seam. therefore containing more moisture; while at Morwell a different seam is exposed and being older it has less moisture and other differences. Dr. Barton named the periods of the different layers from 50 million years ago to the overburden which is approximately 10 million years old.

Bon Thompson.

SALE FIELD NATURALISTS EXCURSION - 1/8/69.

We went southwards through Longford on a cold but sunny morning and turned in the direction of Yarram. Monotonous pine forests blotted out the western horizon and more pines soon appeared behind the fringe of stringbarks to our left. Club President, Peter Turner? pointed out a patch of white boled straggling gumtrees here, one of the isolated occurrences of the Snow Gum, or White Sallee, Eucalyptus pauciflora, that dot the lowlands. On examination we found that, in typical snowgum fashion, the veins in the large leathery leaves ran lengthwise. There is healthy regeneration of saplings on the border of a small depression and, hidden among the rushes and sedges of the thicket, an equally thriving colony of the Eastern Water Rat.

A little further on a stop was made on the forest road round Hobson's block. The natural sandy bush was full of assorted orchid leaves among the bracken. Some were round and some were heart-shaped; some leathery and others glistening; some plain green or backed with purple. There were long hairy sorts and cylindrical leaves like onions. Gnats and Mosquitoes were in flower as were Nodding Greenhoods and the children in the party fell to tripping the tongues in the Tall Greenhoods. Almost everywhere we stopped that day we found the Slatey Helmets, Corybas diemenicus, sitting demurely on their little round leaves.

Along the furrows outside the pine rows a dark fungus grew prolifically. It was Thelephora terrestris. nigger brown and hairy. massed in fans or rosettes, sometimes attached to the bracken stems like a climber. Found always in the pine forests it is thought to have been introduced to this country. There is no evidence that the fungus forms any relationship with the roots of the trees or that it is a plant parasite, but it can choke young pines by its habit of enveloping their trunks and smothering them.

The fresh carcase or a kangaroo meant that we should see no live ones nor any emus in that vicinity that morning. Since progress and pet food (and pines?) came to town the poor old marsupials are having a bad time and spot-lighters take a heavy toll. Birds there were, however. A pair of Wagtails chased Pied Currawongs from the shelter of the teatree. Scarlet Robins, White-eared Honeyeaters, Thornbills, Fan-tailed Cuckoos, Mudlarks and Magpies, a wandering Raven and a Kestrel were noted in one small area. A Striated Pardalote called the familiar "wittichu" and Tree-creepers were heard farther off.

In response to anxious enquiries of "when do we eat" the enthusiasts were rounded up from the scrub and the party adjourned to the first dune that crosses the highway below Hobson's and were soon picnicking in a sheltered bit of back road among Peppermints and Saw Banksias. The wildflowers can be pretty hereabouts. There are two dainty Beardheaths. Several brown and yellow peas, Dillwynnia, Pultenaea, Aotus and Bossiaea cinerea. Golden Guinea-flowers and Common Heath. Boronia anemonifolia and its small relative Zieria veronicea, a prostrate grey hairy plant with undivided leaves that are sweetly lemon scented when crushed and small pink flowers. These last two become scarce as the habitat is knocked about by sand collectors and rubbish dumpers.

While all were sitting eating and enjoying the scene the heavens suddenly opened and a deluge descended upon the heads of the hapless travellers, sending them scurrying for the shelter of the cars, while gutters filled and overflowed with yellow floods. A purely local storm, as we discovered later. A move was made to fresh fields and at Giffard all stopped again to watch the tame Emu amongst the cattle. The bird somewhat doubtfully accepted some leftovers from our lunches. In the brown native grasses by the roadside were drifts of the small yellow heads of a member of the

daisy family, Leptorhynchus, or to put it more simply, Wiry Buttons. Mats of the Cranberry Heath bore lots of green fruit. When the red berries are ripe they are relished by the ants, emus and bush children, if my memory serves me right.

Deep in the bush by Joyce's Road more orchid colonies thrived on the bare burnt soil and a single flower was noted on a Spider Orchid, Caladenia patersonii. Water courses bore signs of recent and furious flooding and where ever the ground was disturbed by logging operations I was surprised to see dozens of ragwort seedlings taking advantage of the wet season. This scourge of the hill country usually doesn't favour the dry plains.

Fungi was more plentiful. Round velvety caps of Coltricia oblectans looking like zoned discs of plywood. Dark brown Pezizas or Cup Fungi. Purple caulflowers of Ramaria. Orange brackets on wood, Trametes cinnabarina. Sshizophyllum (the name means literally split leaf) like tough bleached fans on old logs, grey gills split and turned back into the lobes in quite beautiful patterns. There were several members of the Steriums, stemmed goblets of S. elegans on buried wood; plum colored skin spreading over dry sticks, with lighter borders frilled up at the edges, S. purpureum.

A slender young Swamp Teatree flaunted an anklet of Sterium fans and frills in brilliant yellow. The small toadstool Omphalia (from the Greek, omphalos, the navel) was also common on the scorched ground. We see it all the year round with chrome yellow cap and stem and the dimple in the centre of each cap. Lycoperdon, the pear-shaped puffball, amused young Geoff and Margaret when its smoke-signalling apparatus was demonstrated to them.

The purple creeper Hardenbergia or Sarsparilla (its local name) with its rich purple coloring, and a couple of flowering wattles, Acacia oxycedrus, the Spike Wattle and A. diffusa, the Spreading Wattle, pure gold by the wayside, brightened the bush. A single tree of Acacia howittii on the back road set us to wondering if it was merely a hitch-hiker or if this species comes down from the hills to the plains sometimes. Between the new crossing and the old, at Monkey Creek, is a small patch of the little grey Grevillea lanigera, the same as the one on the Dutson Road.

At the very end of the day, Mr. Turner, who always manages to pull something interesting out of the hat, led us to a spot on the Common to look at Nardoo, or Clover Fern, a complete stranger to Gippsland, or indeed, Victoria. Quite smooth and hairless, it is thought to be the South Australian Marsilea brownii. On the whole, a very enjoyable and rewarding weekend, thanks to the good company of Sale members.

Ellen Lyndon.

WESTWARD TO THE KIMBERLEYS.

As one would expect there is no marked change in vegetation type along the road from Katherine westward to the Kimberleys as there is on the northward route from South Australia into Northern Territory. However travelling towards Victoria River many unfamiliar trees and shrubs were seen as well as many which had already been identified along the Stuart Highway. The latter included the orange flowered Eucalyptus phoenicea, Euc. terminalis and the small dainty silver-foliaged tree Terminalis canescens which is usually accompanied by the mauve Calythrix microphylla and both these species were seen throughout the Kimberly region. The two most distinctive trees which occurred over large areas were the very attractive Silver Leafed Box, Eucalyptus pruinosa, a small tree of a mallee type of growth with silvery-blue leaves which made a wonderful contrast with the various shades of green of the other vegetation and a strange looking tree with weeping foliage and an unusual bark rather like crocodile skin. Its fruit was round and dark red and the only specimen of the latter collected was lost to science as it was handed to an aboriginal for identification and he ate it!

The bauhinias have been seen every day since their first appearance near Elliot and now a little bit later in the season many of them are festooned with the lovely immature red pods which later dry to an undistinguished brown. The flowers of the bauhinia are pinkish-red, the five petals forming a narrow cup-shape from which the ten long stamens protrude markedly, but it is the red pods which arrest the eye, the flowers being somewhat difficult to see among the leaves.

A further reference to the ghost gums should be made in the light of further observations. It seems that chalky-white powdery coatings for trunk and limbs are popular with inland gums, even the river red Euc. camaldulensis has one here and all the gums so garbed are called "ghost gums" by the local inhabitants. As W.F.Blakely suggests this fine white powder is a protective coating. It has the effect of reflecting sunlight, shielding the trunk and branches from sunscorch. It is thus a hot dry climate adaptation.

Euc terminalis appears to be a very widespread species in the north. It belongs to the woody-fruited bloodwoods and there are several members of this group which might be confused with it. Throughout the area the characteristics of leaves, fruits and buds of the species believed to be Euc.terminalis are fairly constant and the bark is the variable feature. Although always thin and flaky the colour ranges from dark-grey to creamy-pink and is persistent in varying degree from covering the base and trunk only to all the trunk and branches.

Acacia dimidiata is also very widespread and has been seen right throughout the Kimberley area as well as in the northern

part of the Territory.

About 50 miles from the W.A. border a most interesting shrub was discovered of unknown genus. It would have been passed by as an acacia if it had not had a few flowers blooming. Its pinnate leaves, spines, pods and Catkins in bud looked very like a wattle, but in flower the fluffy catkins were half yellow and half mauve, the latter had faded to white on the older blossoms. When examined under a hand lens the male flowers with stamens appeared to form the lower yellow part and the mauve flowers at the top of the catkin had the styles. The few specimens with flowers which were collected are being treasured for identification as there was only one shrub at the place of discovery and none have been seen since. The plant could be an Albizzia, a genus related to the Acacia, but if so its flower does not fit the description of those of Albizzia in the only reference book available - Black's Flora of South Australia.

The most distinctive tree in the Kimberley region is the boab, baobab or bottle-tree, Adamsonia gregorii is its full title. When first seen at the Victoria River on the Northern Territory side of the border, they were leafless and it is in this state that their peculiar bottle-shaped trunks are seen to best advantage. Some of the older ones are contorted into grotesque shapes and look like disreputable old giants whose appearance is changed completely when clothed in a respectable mantle of green such as all were acquiring as we journeyed through the area. We were curious to see the boab flowers and were lucky enough to find one tree with a few of the large creamy-white scented blooms which are about 3" across and have thick satiny petals and numerous stamens. The fruits are large and egg-shaped with a furry covering and may be up to 8" long. They are tough when immature but when ripe become quite brittle so that on striking the ground, split and expose the pithy contents which contains a few dozen kidney shaped $\frac{1}{2}$ " by $\frac{1}{2}$ " seeds. The pithy material is eatable, the taste being like sweetish bread.

From Timber Creek onward right through the northern corner of W.A. the most conspicuous eucalypt and the predominating one in some parts was the locally called Cabbage Gum, probably Euc. clavigera or variety diffusa of this species. The leaves of this tree seemed so unlike a eucalypt having no smell of eucalyptus oil when crushed and being rough from a covering of hairs, that it was not until the fruit was seen that its genus was established but the species still has to be confirmed. The trunk has a dark grey bark at the base but the upper part and branches are smooth-white and make a striking contrast with its dense green foliage.

Although many beautiful grasses were seen in the Northern Territory the predominating grass throughout the centre and the north is the Porcupine Grass, commonly called Spinifex. The former name aptly describes this strange plant with its rigid sharp-pointed leaves growing in the form of a tussock and presenting

its spines to the exterior. The flowering stems rise about 18" above the tussock and form the waving sea of grass. There are ten Australian species of Porcupine Grass which belong to the genus Triodia (Greek treis, three; odous, a tooth;) the flowering glume having three teeth or lobes. At least one other genus has similar rigid needle-like leaf-blades and species of this may also be called Porcupine Grass.

Ptilotus is another genus of which many species have been seen throughout the north. This genus belongs to the family Amaranthaceae and its name is a Greek word meaning "winged" or "feathered", descriptive of the fluffy appearance of the flower heads due to numerous woolly hairs on the flower segments. The common name of Pussy-tails is a very apt one for these charming plants of which there are about 100 species, all Australian. The ones seen in our journeyings were mostly small bushes about a foot or two in height but one particularly attractive one in the Kimberley area is prostrate and forms silvery-mauve patches of several yards square in the red soil. The flowers of the genus are usually pink or mauve but sometimes yellow or green, all in a silvery mist of hairs. The Western Australians call them mulla-mulla, presumably their aboriginal name.

The predominance of silver foliage or the covering of fine hairs in plants of the inland is noteworthy. Both these are useful adaptations, the foliage colour reflecting the intense light like the white bark of the inland gums and the hairs being a protection against hot dry winds. Many plants including wattles have a varnish-like coating which prevents loss of water. The Mulga, Acacia aneura, not only has silvery foliage but its narrow leaves are usually held vertically, pointing upwards so the sunlight does not fall directly on them. The presence of Mulga is said to indicate a heavy soil and a rainfall of about 8" per annum received mainly in the winter.

The Kimberley Mountains with their bare craggy red ridges and often flat tops provide an everchanging pattern of colour from the early morning pale pinks, mauves and blues to yellow, red and brown in strong sunlight with the foot slopes clad in green of grass and hardier shrubs and small trees. The panoramic views with these mountains in the background delighted us and made us loathe to leave this northern area.

On the way southward to Hahhs Creek odd stands of Melaleuca probably microphylla were seen and the country became more open as Halls Creek was approached and west of that town the road runs out of the hills and into open grasslands dotted here and there with a few hakeas, grevilleas and wattles. Several new species of the latter were collected here and the Holly Grevillea (Grevillea agrifolia) and Acacia hillii or hilliana last seen in the Northern Territory well south of Katherine were again with us. The branches of the latter did not follow the contours of the ground as closely as those seen in the Northern Territory and one didn't feel

tempted to throw a cloth over one of suitable size and use it as a lunch table as one did with the "table" wattles there! Within 100 miles of the Fitzroy Crossing the vegetation became more sparse and some gibber and saltbush were seen here and there with hills on the far horizon. After Fitzroy Crossing proceeding towards Broome the number of acacias increased until wattle scrub predominated all the way. The last 100 miles to Broome were "golden miles" with wattles blooming on either side of the road.

And here this record must close. We have already left the northern area and are well on the way southward rather reluctantly but with high expectations of more exciting discoveries.

N.T.Rossiter.

COLLECTION & PRESERVATION OF HERBARIUM MATERIAL.

Continued from Page 10 of Issue No.68. Published with the kind permission of the National Herbarium of Victoria.

C. STORAGE

A dried specimen is displayed to advantage by mounting on stiff white paper of standard size for the herbarium concerned. A widely used size is approximately 17 by 11 inches. Attach the specimen with thin strips of gummed paper placed across stems or leaves. Only a few points of attachment are necessary to keep the specimen immovable on the sheet and protect it from damage. Any small detached pieces of the specimen may be preserved in an envelope attached to the sheet. It is inadvisable to use adhesive cellotape for mounting specimens as this often shrinks or works loose with time. If applied across flowers, or similarly important plant parts, it usually ruins these for subsequent dissection or comparative work.

As identification and classification of specimens may alter in the light of new knowledge, each specimen should be mounted on its own sheet so that its position in an herbarium may be altered if necessary. When a suite of small plants, e.g. annuals, of the one species is collected from the one place at the same time it is then permissible and advisable to mount all members together in order to show the range of variability. Every sheet should be carefully labelled with the data mentioned under A, and, when known, the name of the plant.

Mounted specimens should be stored horizontally in a dry place, as free from dust as possible, and kept sprinkled with and surrounded by naphthalene or a similar insect repellent. Most herbaria position their specimens according to natural affinities, but alternatively specimens may be placed alphabetically within each family, then species alphabetic within the genus. This latter method renders specimens readily accessible, although it often separates closely related plant groups.

TYERS NATURE DIARY.16/3/69.

The wailing cries of Yellow-tailed Black Cockatoos sounded close ahead as I wandered up Strawberry Creek. From the next bend I could see three of the birds perched on one branch of a dead acacia, about thirty feet distant. Two were perched very close together, each taking it in turn to gently nibble the other about the head and nape. Showing affection?

After several minutes two others landed briefly in the same tree, and soon afterwards all five flew off toward Stoney Creek.

18/3/69.

Near the fire-dam half-way down Rintoulls Road we again met Red-belly the snake. He turned and slithered away into wiregrass near the water's edge. We thought he had hidden there until we saw, well out in the pond, something swimming under-water. At first the foreshortened effect made this appear to be an eel, but a flash of subdued red told us it was Snake. Very faint ripples showed on the water's surface a couple of times, but no part of Snake was visible above water until he reached the far end of the pond. Here he trod water(?) and raised his head for a good look about before submerging again and swimming back a short distance to one side. Near a tussock we lost sight of him. Since there was no quivering of tussock stems or other vegetation we assumed that Snake lay low in shallow water among the rather sparse stems of the tussock.

The experience interested me as other times I have seen a snake swim it did so with its head held above water. On each of these occasions though, the snake did not know it was under observation.

Joy Johnstone.

SILVER-EYES love woolly aphis and a small flock have spent weeks clearing up an infestation on a Granny Smith apple tree in my garden. They gave it their close attention each day until I heavily pruned the tree. One day I was attracted to my Banksia ericifolia which seemed to have a strange honey eater paying attention to a blossom. On looking closer I found it was one of the silver-eyes extracting the honey as to the manner born, perching on the bloom and using beak and tongue to extract the nectar.

The YELLOW-FACED HONEYEATER is common enough round Moe judging by the calls I hear from the gums in the nearby playground but I had the second visit from a pair of these birds recently. Ignoring Banksia ericifolia and B. spinulosa which were flowering profusely they were going carefully over the rose bushes evidently in search of aphids. They found the banksias later and have been back several times since.

Ern Homann.

SAVE OUR BUSHLAND - PUBLIC PROTEST MEETING.

Details have been received from Mr. Jack Brooks of Warragul of this meeting which was held on the night of 29th of August in the Lower Melbourne Town Hall.

Response was tremendous with nearly 1000 people attending of whom 100 had to be turned away due to lack of space. After listening to a number of speakers a number of resolutions were carried which are as follows:-

The Government will be urged to:-

1. Release land for agricultural purposes only after it has been established that it is not required conservation, recreation or forest purposes.
 2. Boundaries of nature reserves be fixed in accord with natural features with due regard to the ecology of the area.
 3. Any drainage of wetlands be thoroughly investigated to ensure that land in items 1 and 2 are not adversely affected.
- Further resolutions:-
4. The decision to alienate the Little Desert be rescinded and be reexamined on the basis of item 1.
 5. The boundaries of the Lower Glenelg National Park (Kentbruck area) be reconsidered in accordance with item 2.
 6. The decisions of the meeting be brought to the attention of the Premier of Victoria. (A deputation has been arranged to meet the Premier on the 24th of September.)

EXTRACTS FROM THE L.V.F.N.C. EXECUTIVE MEETING - held on Tuesday 19th August at the home of Mr. and Mrs. McElroy.

LATROBE VALLEY NATURALIST.

A further investigation was made into the provision of the "flying duck" emblem on the next purchase of front covers for the magazine. A decision to purchase a block will be made by members at the next general meeting.

AUSTRALIAN CONSERVATION FOUNDATION.

A ballot form for the Victorian Council of this body was completed after lengthy discussion - a most difficult decision as all candidates are excellent conservationists.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 30th September at the home of Mr. and Mrs. Thompson at Koornalla.

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Readers will be saddened by the news of the tragic death on Mount Erica of Mr. Jeff Watt. Jeff was a member of the Warragul F.N.C. and was a keen native plant gardener. Our deepest sympathy is extended to Mrs. Watt and members of the family.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825.

Meetings commence at 7.30pm and are held at the
Yallourn State School, Y. LLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302.
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
Sale Technical School, SALE.

TRARALGON F.N.C.

Honorary Secretary:- Dr. D. W. Collins.,
4 Charles St.,
Traralgon. 3844. Tel. T'gon 72593

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3820. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official
publication of the Latrobe Valley Field Naturalists' Club.
Contributions on any aspect or branch of natural history are
invited from members of all clubs and should be addressed to:-

Honorary Editor (J. M. Peterson)

14 Barry St.,

Morwell. 3840.

Tel. Morwell 42129.

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ISSUE NO. 70

OCTOBER, 1969

PROTECT AND ENJOY

LATROBE

VALLEY

NATURALIST

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BY POST AS A PERIODICAL.

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FORTHCOMING EVENTS.

-----MEETINGS-----

WARRAGUL F.N.C. -----Friday 17th October.

Speaker:- Mrs. Ellen Lyndon.

LATROBE VALLEY F.N.C. -----Friday 24th October.

Speaker:- Mr. Peter Turner.

Subject. Algae.

SALE F.N.C. -----Friday 7th November.

Speaker:- Mr John Landy.

Subject:- Fungi.

TRARALGON F.N.C.-----Contact Secretary.

LITTLE DESERT PROTEST MEETING-Sunday 19th October at 2.00pm.

Richmond Town Hall.

-----EXCURSIONS-----

WARRAGUL F.N.C.-----Contact Secretary

LATROBE VALLEY F.N.C.-----Saturday 25th October

Further details from Excursion Secretary
(Tel. Yallourn 52392)

SALE F.N.C ----- Contact Secretary.

TRARALGON F.N.C.----- Contact Secretary.

LATROBE VALLEY F.N.C. ----- Weekend 8/9th November.

Camp out at Wilsons Promontory.

WARRAGUL & RINGWOOD F.N.C's--- Saturday 15th November.

Excursion to:- Mt. Beenac.

Further details from Warragul Secretary.

(For further information of these clubs please turn to the inside
of the rear cover).

THE DAISIES AND EVERLASTINGS. by David Frost.

These are of the family Compositae, so called because each flower is really many small flowers packed closely together in one composite or collected flower head. These small flowers are called florets and if closely examined will show a perfect flower structure. Each floret is capable of producing a seed.

The family is very extensive - represented in every country of the world. In Victoria alone there are over 200 species ranging from tall trees such as the Musk Daisy-bush (Olearia argophylla) and the Blanket-leaf (Bedfordia salicina) to the spreading ground cover plants such as the Rock Daisy (Brachycome multifida).

There is no botanical district on the continent that does not have several representatives of the genus and it is important that we should consider its place in natural development. Some forms are upright and straggly - others compact - many are short stemmed and some are long - there are bushy daisy plants and others almost devoid of foliage.

One feature that most have in common is the abnormally wide spread of the surface root system. This type of root system is commonly found in places where vegetation is sparse and where botanical reconstruction is taking place.

First the hardy daisy can prosper on exposed ground, binding the soil with its elaborate root system and providing the first layer of humus to promote its own growth and encourage that of others. The next phase of development is in heath land with an abundance of low vegetation - here the daisy will tend to grow taller than other plant life and is the only instance in which this is observed. In the transition from heath land to scrub land the daisy plants will remain shrub-like and considerably smaller than the tea-tree and associated flora. In heavily forested areas the daisies previously mentioned will be found as tall trees, e.g. the blanket leaf and musk.

So we can see that this plant must have many and diverse functions - its wide distribution in its varied forms show it to be an extremely versatile addition to the natural development of which it forms an integral part, supporting and being supported and taking its place in a system of order that only man, as the architect of chaos, can destroy.

A FUNGI NOTE by Bon Thompson.

Members on the excursion at Darlimurla will remember the tiny green fungi with little orange "flowers" found by Mrs Peterson. On checking in Collins "Guide to Mushrooms and Toadstools", an English book, we found a very similar fungi with the long name

Sphaerobolus stellatus. The only difference between the book and the specimen was that the little spore ball was a different colour.

The tiny fungi apparently belongs to the group of "nest" fungi. The piece of bark was covered with patches of green interspersed with little orange balls, orange "flowers" with a tiny brown ball in the centre and little white balloons. The green is a thin covering over clusters of tiny orange balls about 2 mm in width. These balls split open into the "baskets" with the spores in the brown ball in the centre. This tiny ball is covered with a clear sticky substance. Finally the lining of the "basket" blows inside out shooting the spore ball into the air and leaving a balloon-like structure behind. According to the book the spore ball can land several feet away - a truly remarkable method of spore distribution for such a tiny fungi.

NOTES ON A JOURNEY TO QUEENSLAND from Ellen Lyndon.

We set forth on a wet foggy morning in late August on our way to Lamington National Park on the Queensland border.

A magnificent scenic highway cutting straight through the hilltops has lately replaced the narrow winding road to Foster, and beyond that township we passed a few flowers that brightened the way. Patches of coloured Heath, clumps of Wonga Vine and Clematis and the Varnish Wattle. Beyond Woodside, on the sand ridges, the Spike Wattle fairly shouted at the passer-by.

Leaving Stratford, on the gravel rises the Royal purple of Sarsparilla Vine washed right up to the road verges, lovely pools of colour. It is a pity that Providence Ponds area is so often burned. Bracken tries in vain to shelter the bare sand.

Through Eastern Gippsland the rainforested gullies were dripping with moisture and on the verges the creamy Bootlace Bush hung low to the road, spiked in places with strands of scarlet Heath. Again, the purple Hardenbergia coloured the cuttings and Acacia longifolia turned the road into a river of gold for mile after mile. It has gone with us to Sydney and beyond, along with our familiar little Acacia suaveolens and Acacia myrtifolia.

At Nowa Nowa we detoured for another look at Mrs. Lamburn's garden at the mill, always worth a visit. This time a beautifully drooping fine leafed wattle caught the eye. She thought it was A. leprosa, the Cinnamon Wattle, and I took it for A. subporosa, the Bower Wattle, but in our disagreements Mrs. Lamburn is usually right for further along the highway the Bower Wattle proved to be not yet in bloom. Bright Tetratheca; a pale Boronia; Dusty Miller much improved by garden conditions; and a rich yellow Pomaderris were others I remember in that native garden.

Near Cabbage Tree Creek we noted a really magnificent pink form of the Common Heath. The creek flora is nearly all spoiled today, but Beardheath misted the Coral Fern thickets and a pale pink Hakea appeared, probably a form of H. sericea. It too continued right along and over the border into New South Wales.

We camped that night on a lonely forest track right at the edge of Victoria, looking down a great gash in the dark forest where the last stretch of new highway is being prepared. A steady patter of rain drummed on the roof of the caravan.

After the previous nights rain the morning dawned fine and sunny, with the trees reflected in still pools of rain-water. Bird voices were mainly those of the Lorikeet tribe, high in the treetops. A Scarlet Robin in very brilliant plumage was beating some insect on a limb, in the most approved Thrush fashion. He fed it to a female sitting in a dry tree. Yellow Robins and Blue Wrens worked on the new ground of the roadbed. A Black-tailed Wallaby trailed disconsolately around among a collection of machinery. White-throated Tree-creepers plied their trade and called their distinctive whistle.

A brisk walk up the Border Track showed there was plenty of ground cover, Poa species and Gahnia radula with small herbs and flowers, Heath, Golden Guinea Flowers, Rice Flowers, Wattles and Beardheaths. A most embarrassed monotreme with exceptionally sharp spines, it tried in vain to dig into the hard bitumen.

I am convinced that N.S.W. has made a serious mistake in its choice of State Emblem. We have seen but one Waratah, but the purple Hardenbergia pea is there by the roadside almost every hour of every day as we pass, now well up the north coast. Kennedya rubicunda runs it a close second with Clematis in third place, often all intertwined.

Most exciting flowers of all, I think, were on the heathland of the plateau above Wollongong. We had travelled for miles through farm country, backed by the creeper matted gullies and slopes of semi-tropical rain forest, and suddenly we were over the range in dry forest country.

The whole country was scarred by last summer's fires, marked for years to come. And then we ran into wet heathland, a perfect floral carpet. The air was heavy with scent under the hot sun. Imagine miles of misty pink Swamp and Beard Heaths, splashed with yellow Dillwynia and Wattles. red Grevillea, pink Boronia, purple Patersonia flags, Honeyflowers, cone-bush, tall blue Sun-orchids and Tiger Diuris. This merged into the Sydney Sandstone area, with rockeries of the great red Spear Lilies, Doryanthes sp., along with most of the others mentioned. Where there are flowers there are the honey-eating birds and insects, butterflies and spiders.

It was a country to come back to and so close to a great city. How I wished I had Correa's new book to help me with the plant species.

It was not unlike the Darlimurla bushland. Sheoak saplings blackened in last summer's fires were covered from tip to toe with brackets of a fungus, Trametes, like the Rainbow Fungus. Ahead of me, along the track, a large animal of pale sandy colour poked its head out of the bushes.

I have long cherished the wish to discover a Tasmania n Tiger (Thylacine) in the field. Other folk seem to report it quite often! But the steady thump of this one's departure bespoke the Wallaby tribe, probably the Red-necked Wallaby of the coastal scrubs. Some careful stalking failed to provide a closer look, always it paused behind the cover of bushes so that it could inspect me.

COWWARR DIARY from Mrs. M. Hague.

JULY 1969 Lyre birds are still on the increase in the bush around Cowwarr. I've heard their calls from several directions at one time.

I had the pleasure of looking on "Mrs. Lyrebird" for fully five minutes as she danced down the road, the light stones showed up her shiny deep brown feathers, her bright eyes and arched tail, a picture of health and beauty I want to keep in my mind's eye. She gave her little song and gradually made her way into the bush foraging the while.

The Mountain Ducks have been seen on the dam my son made 2 years ago at "Doyles Paddock", Seaton Road. Last year they reared 10 ducklings there; there are big old trees and roots nearby. I expect Mother nested there while Father kept watch alone on the water. The other night the ducks were on a drainage pond nearer the road when a car came along and shots were fired. Fortunately the ducks kept flying. How can wild life settle to rear their young while such people roam the country!?

The Spoonbills also visit the dam. Last night they were "spooning" at the water's edge, getting their supper. It was a perfect early Winter's night with a big silver full moon. They sensed me near, so I turned and left them alone. I've also seen three of these beautiful birds opposite our house on the irrigation channel.

DRAGONFLIES. There are over 4000 species of dragonfly. Australia has less than 300 species. However a great number of these are closely related to ancient species - some up to 250 million years ago.

SPIDER'S WEBS by Jack Brooks.

We are all aware of the means by which baby spiders get away from "home" in what seems to be a search for some place where there is a dearth of spiders, or perhaps it is to be sure that if there is a place which last season was unsuitable for one particular species, there is a certainty of such a spot having at least one representative ready to use any opportunity that opens up. These and many more questions in this field have yet to be answered by some pretty diligent and sustained research.

Several times this year it has been a noticeable feature of such elevated spots as a silage wedge that there has accumulated so great a number of spider air-lift lines as to form a conspicuous curtain-like sheet of crossed lines spreading over the top surface. It would appear that at the times under notice a peculiar failure of lifting currents just let the young hopeful's web-streamers float across one another and settle down for hours on end.

I heard of it happening elsewhere this year on a grass paddock so thickly that the toes of a boy's shoes, in walking through them, accumulated a cover so heavy that, on being lifted off, the shape of the shoe was maintained - it acting as a last.

The first time the silage-wedge blanket was noticed, I observed how, of the great number of young spiders running in and under the webbing, some had apparently spent so much time on the job they were getting quite sizable. It made me wonder how big they could be and still be able to be lifted and transported by this means.

Today (15th July) I was amazed to see a spiny-backed fellow, all of $\frac{1}{4}$ " in diameter, float past my face out in the open. Fortunately he was heading up and towards the sun which lit part of his lifting apparatus. I say "part of" because it was so excessive that the top part reached up beyond the area where the glare of the sun made the web visible. From what I could make out, there were four long verticals rising up from the spider's body and spreading out, the two outside strands being about 12 to 15 inches apart, at which spacing they were held by horizontal lines (around 6 to 10 of these) not all of them reaching across all four strands.

One curious and mysterious thing was the fact that they stayed straight as though the verticals were impelled by some unknown force to keep as far apart as the horizontals would allow them to go. How far this complicated structure extended up beyond the illumination it was not possible to determine, but to get the lift required it must have been rather extensive as there was very little air movement either up or sideways. In travelling about 150 feet the spider was elevated some 60 feet. At this stage, although he had been kept by direction of travel in a favourable relationship with the sun's position, I lost sight of him still rising and drifting.

The big question to me was HOW did he build his air-lift contrivance? It must have been big enough to lift him before he took off or he would have plummeted to earth, assuming then, for obvious reasons, he must have started his work up from the ground. One can imagine several lines being fed out to catch rising air currents, but those horizontal cross-members.....!

...AND SOUTH-WEST ALONG THE GREAT NORTHERN AND
COASTAL HIGHWAYS

By Miss N.T. Rossiter.

From Broome, the only road giving access to this town was traversed for the second time for 22 miles till the turn-off to Port Hedland.

The wattle scrub previously mentioned continued for a few miles after the turn-off and then after crossing a creek-bed with many Paper-barks on either side (Melaleuca sp) the scene changed suddenly to a completely treeless grassy plain, but 8 miles on, we were back in the wattle scrub again with Bauhinias and Grevillea agrifolia among the species recognised.

From Broome to Port Hedland and beyond one of the commonest eucalypts is the Broome Bloodwood, Eucalyptus zygophylla, another of the woody-fruited bloodwoods with very large urn-shaped fruits - the tree itself being small and shrubby with opposite, stalkless, stem-clasping leaves and persistent bark.

A specimen of calandrinia was collected in this area, a prostrate succulent herb with pink five-petalled flowers (rather like a pink buttercup), one of a large group mostly found in semi-desert areas and belonging to the Portulacaceae family. The more familiar name for these delightful plants is Parakeelya.

Also in this first day's journey from Broome a lovely purple-flowered bush (about 3-4 feet) was seen - a Cyanostegia sp. belonging to the Verbenaceae family. The long flowering stalks of this shrub are crowded with blossoms which have a superficial resemblance to a viola. Throughout the day the brilliant purplish-blue patches of this shrub were seen covering large areas far back into the scrub on either side of the road.

About 150 miles from Broome, in open country, a small unfamiliar tree with tough corrugated bark and large green leathery leaves was first seen. Later this was found to have fruit like large golf-balls hanging in bunches and is probably Owenia reticulata (the leaves having a strong network of veins) or Desert Walnut. Patches of this tree, wattle scrub and paper-barks alternate with open plains and about midway between Broome and Port Hedland the road passes through a 6 mile stretch with no vegetation except grass and occasional salt-bushes and very red sand-hills reminding one that this area is not far from the Great Sandy Desert.

Passed the treeless stretch a new acacia with very large cream flower-heads occurs in patches on the plain and once again the Bell-fruit tree Codonocarpus cotonifolia makes its appearance. Bauhinias are seen all along this route and in this "midway" region quite a lot of stunted Ironwood or Poison Trees, Erythropheum chlorostachys. A tree with darkish green oval leaves and large seed-pods. It is toxic to animals, hence its common name. Occasional eucalypts, the Broome Bloodwood and a white-trunked broad-leaved species of similar appearance to the Cabbage Gum, and one of the "fuzzy-barked" wattles also occur in this area.

Three hundred miles from Broome the diary entry starts "red sand, blue sky, golden wattles, open plains" and it conjures up a lovely picture in my mind. Here a new and distinctive species enters and we were to see it often for hundreds of miles - a "red flowered" wattle. A singularly unattractive small straggly tree which gives one the impression that not only the present individuals but the ancestors for generations back had only just managed to survive in the battle for existence in very hard conditions. The flowers however are interesting and when examined closely found to have reddish-brown sepals and petals. The lower half of the stamen filament is also red and only the yellow anthers give it a familiar "wattle" appearance. Bunches of curling reddish pods were just forming and stood out clearly against the dull grey oval leaves which terminated in a very sharp point.

For the last 100 miles to Port Hedland the open plains were studded with this as yet unidentified wattle, small eucalypts and a few of the Desert Walnut trees until the last 5 miles of completely treeless plain. From Port Hedland an inland route was taken to Wittenoom, over open plains dotted mainly with the "red-flowered" acacia and an attractive golden flowered, oval leafed wattle.

At the Turner River there are magnificent melaleucas with lovely papery bark. Porcupine grass is still the predominating one and several beautiful patches of Sturt's Desert Pea were seen. An acacia with silver holly-like leaves and the flowers at the ends of the branches grows along much of the way. No bauhinias had been seen since Port Hedland. The yellow of flowering cassias and the purple solanums in the red sand make a vivid and unforgettable picture. Many ptilotus, cork-bark hakeas, Broome Bloodwoods and Eucalyptus terminalis are other species along this route.

The country gradually becomes hilly as the Hammersley Ranges are approached. The Wittenoom and Dales Gorges were visited from Wittenoom in the Hammersley Ranges. The first, one feels, has been spoiled by the asbestos mining but the Dales Gorge is magnificent, wild and rugged with sheer cliffs of deep purple colour which against the blue of the sky make a perfect colour combination. Gnarled and twisted white-trunked eucalypts here and there cling precariously to cliff-faces further enhancing the beauty of this gorge.

These crooked, white-trunked cliff-clingers have small glaucous leaves and buds with a powdery bloom and similar in shape to those of the inland Red Gums but the fruit is smaller and thinner walled with usually three exerted valves.

From Wittenoom the route taken was via Millstream through station properties Mulga Downs, Mt. Florence and Dawson Well to Onslow. At first back to the mulga (Acacia aneura) and gibber with porcupine grass, several wattles and stunted eucalypts. About 50 miles from Wittenoom the Mulga gave place to the cliff-clinging eucalypt and then to the "red-flowered" acacia as the predominant shrub. On the branch road to Millstream bush and open country alternated, white-trunked eucalypts predominated and on the Fortesque River crossing we again saw the lovely paper-barks, also two species of palm and a mauve flowered hibiscus with an attractive maple-like leaf. In the open country just passed the Fortesque River crossing there were lovely patches of pink, mat convolvulus and interspersed with these were yellow pimeleas and purple goodenias.

The whole way from Wittenoom almost to the junction of the Millstream track with the north-west coastal highway there are magnificent views of the mountains with their purplish-red rocky summits.

South of Onslow on the North West Coastal Highway, red sand alternates with grass cover. Several species of wattles and a cork-bark hakea were in flower. Acacia tetraphylla (Dead-finish wattle) and Acacia victoriae are two wattles which were seen in South Australia and are now seen again. A very bushy, sickle-shaped leaf one is also very common.

In addition to the golden cassias and purple solanums already mentioned a mauve daisy and a lovely purple swainsonia provide colourful patches by the roadside.

South of Nyang (about 100 miles south of Onslow) there are red sand ridges and as well as the species already mentioned occasional patches of Sturt's Desert Pea and here and there the ground is carpeted with daisies. And as we proceed there are bigger and bigger patches of these and then pink everlastings (Schoenia Sp), white mopheads (Cephalipterum drummondii) and still the purple swainsonia.

As Carnavon is approached gardens of small flowers alternate with sandy soil and stunted wattles.

South of Carnavon there is still red sand, some salt-bush, several wattle species and now larger and larger patches of white and yellow mopheads, pink schoenias, billy-buttons and purple swainsonia. From about 30 miles south of the Wooramel River there are veritable gardens of these small flowers stretching as far as the eye can see, most often patches of one colour, pink, white, yellow or purple but sometimes a mixture of these.

About 40 miles south of that river there are some lovely groves of Codonocarpus cotonifolius (Bell-fruit) and further south still both the Bell-fruit and a species of the related genus Gyrostemon (a small, shapely tree with very attractive, lacey foliage and some-what similar fruit to the former species) occur in great numbers over an approximately 20 mile stretch.

About 80 miles north of the Murchison River new species of mallee eucalypts are seen and an increasing variety of wattles. About here one may say the real wildflower country starts and nearly all the way to the Murchison we drove through avenues of brilliant red-flowered Hakea bucculenta, the lovely Grevillea dielsiana, Banksia prionotes, the orange and white flowers of which look like enormous candles, lovely patches of baeckea and many, many other species until 5 or 10 miles north of the Murchison River we came into open cleared country, back to the signs of civilisation after two perfect months in country where except for the few towns passed through there is a minimum of human interference.

ERRATA

August Issue No.68, page 6, 2nd para:- Primrose Gap should be Prowse Gap

Sept. Issue No.69, page 6, 2nd para:- Adamsonia gregorii should be Adansonii gregorii
page 7, 2nd para:- Amaranthaceal should be Amaranthaceae.

A FUNGI NOTE from Ellen Lyndon.

The lovely fluffy-looking Merizium coralloides is a member of the Hydnaceae or toothed fungi. It lives in rotting logs and the spores are borne on long white spines or teeth, which are pendant from spreading branches. It was under observation two years in succession at Darlimurla, in a spot we all knew, but which, thanks to the dry winter and good working conditions, is now gone forever. I would like to hear from other observers who have met with this spectacular fungus in the Gippsland bush, so that we can compare notes and find out how common or rare it may be. Overseas writers speak of it as edible and good so it is probably of world wide distribution. Our example was in the butt of a fallen blackwood tree.

A QUERIE ON EUCALYPTS from N.Simpson.

On a visit to the Rokeby Reserve recently we found a young sapling decked with some very long leaves. The largest we measured was exactly 25 inches in length from the end of the stem to tip of leaf. One wonders what is the record length of eucalypt leaf.

EXTRACTS FROM THE L.V.F.N.C. EXECUTIVE MEETING - held
On Tuesday 30th September at the home of Mr. and Mrs. Thompson.

LITTLE DESERT PROTEST MEETING.

A letter was received advising of this meeting (See "Forthcoming Events"). The executive would encourage as many members as possible who are able to attend this important meeting.

CONSERVATION COUNCIL OF VICTORIA.

The importance of this proposed body is such that it will be further discussed at the general meeting of the 24th Oct. Invitations are being sent to nearby clubs so that they too can attend to discuss the proposed constitution.

GIANT CLUB MOSS - RESERVES.

Mr. Thompson gave details of two proclaimed Water Reserves. These were:-

Basin Swamp - 149 acres in the Parish of Stradbroke.

Black Swamp - 72 acres in the Parish of Willung.

Mr. Thompson has confirmed that the Bushy Clubmoss is growing in the Basin Swamp Reserve but has yet to confirm it is in Black Swamp. Local information would indicate that it is there too.

LATROBE VALLEY NATURALIST.

Following from the decision of the general meeting to purchase a block for the front cover it was decided to use a temporary cover for this and the next issue. This would allow plenty of time to be spent on the design for the new cover.

CAMPOUT - Weekend of 8/9th November.

It was decided to make Wilsons Promontory the venue for this campout - particularly as there was a likelihood of the January campout being in East Gippsland.

AUSTRALIAN CONSERVATION FOUNDATION.

Results of the Victorian election were received and are as follows:-

Mr. C.N.Austin - Grazier and ornithologist.

Mr. A.D.Butcher - Director of Fisheries & Wildlife Department.

Mr. R.C.Downes - Chairman of Soil Conservation Authority.

Mr. G.M.Pizzey - Naturalist-writer.

Prof. J.S.Turner - Prof. of Botany, University of Melbourne.

Members will be particularly pleased that a member of our club - Graham Pizzey - was elected.

Congratulations Graham!

NEXT EXECUTIVE MEETING.

Will be held at the home of Mr. and Mrs. Eadie,
108 Helen St., Morwell on the night of the 28th of October.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825.

Meetings commence at 7.30pm and are held at the
Yallourn State School, Y. LLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302.
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
Sale Technical School, SALE.

TRARALGON F.N.C.

Honorary Secretary:- Dr. D. W. Collins.,
4 Charles St.,
Traralgon. 3844. Tel. T'gon 72593

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3820. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official
publication of the Latrobe Valley Field Naturalists' Club.
Contributions on any aspect or branch of natural history are
invited from members of all clubs and should be addressed to:-
Honorary Editor (J.M. Peterson)
14 Barry St.,
Morwell. 3840. Tel. Morwell 42129.

~ Fred Sharp.

NALD

Vic 3480

ISSUE NO. 71

NOVEMBER, 1969.

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"A PATTERN OF WILDFLOWERS"

A report of an address given to the L.V.F.N.C. on the 26th of September by Miss Jean Galbraith, reported by Mrs. Bon Thompson.

Miss Calbraith spoke on the pattern of wildflowers throughout Australia. She explained how the rainfall and climate were responsible for the types of native plants in each area. She divided Australia, broadly, into coastal areas, open woodlands, mountain forests and dry areas, and related each to its rainfall.

Coastal areas often have good rainfall but conditions for native plants are not suitable for luxuriant growth as salt breezes cut back the plants. Eucalypts do not grow in the rainforests, the plants present have broad leaves that are held flat, e.g. the Morton Bay Fig. These leaves enable the plants to absorb all the available light in the dense growth caused by the heavy rainfall. In the mountain forests Eucalypts flourish and much of the native growth is large, the flowers are mostly white or pale and the colour comes from the berries and fungi. In the open woodland country with 20-30 inch rainfall, the plants are still fairly large but much less dense and because of this, and the fact that these areas are usually dry in summer and wet in winter, we find many lillies, orchids and other colourful plants with their ability to withstand dry summer conditions. In the heathland the growth is mainly shrubby. Eucalypts cannot exist in areas of less than 9 inches of rainfall but wattles can exist in as low as 5 inches of rain. So we have many wattles and smaller shrubs in the heathlands.

Miss Galbraith then explained how the conditions in the very dry areas are similar to the alpine conditions in that the frozen snow gives no moisture to the plants and so they must exist without it for several months. Miss Galbraith showed the similarity of both desert and alpine plants, e.g. how the bluebells dry off completely in desert and alpine areas but grow all the year in the forests. The plants of the bog or swampy areas were also mentioned e.g. Fairies Aprons, Sundews, orchids, etc.

Miss Galbraith showed many slides and explained how each plant was adapted to its own environment:- hairs to prevent evaporation, flat rosettes or mat plants and dense growth to withstand snow, very tiny leaves in the desert, fleshy leaves to retain moisture and many others. The slides finished with a group of pairs showing the same genus adapted for different conditions - Waxflowers with threadlike leaves for dry areas but large leaves in the forests; desert wattles with tiny leaves but forest wattles big with large leaves. Other pairs were Hovea, Riceflowers and Banksias.

The talk was greatly appreciated by the large audience and this appreciation was duly demonstrated.

ONE OF NATURES' CASUALITIES.

Further observations from

"Up North" from Mrs. Ellen Lyndon.

Somewhere south of Grafton we were travelling through pretty green bush interspersed with paperbark swamps, when the road crossed a deep channel. A white-breasted Sea Eagle sat on a post, its attention fixed on some object on the fence-wire above the water. Screened by the trees we ground to a halt and crept quietly back on foot, but the eagle heard us and rose, to be immediately set upon by ravens and magpies and hustled away from the local scene.

Barbed wire stretched across the drain and about the centre of the span something like feathers flapped in the breeze. We investigated this and found that an unfortunate flying fox, or fruit-bat, was impaled on the barbs. It had probably landed on the wire in the very early morning to roost through the daylight-hours. Very occasionally one sees a stray like this roosting alone in the open. A passing eagle had spotted it and moved in for a tasty breakfast. In its struggles to take off or to move along the wire the bat had reached up with its long webbed wings and hooked the longest section, corresponding to the forefinger, over the barbed wire and was firmly caught. It had been fighting back valiantly for its mouth was full of white breast feathers.

At close quarters a flying fox is nothing more or less than a pathetic small dog on whom nature has played a bad joke by equipping it with clumsy wings. It had sharp little pricked ears and turned its head from side to side, watching us closely. How to release it from the prospect of a slow death on the wire or a quicker one from the eagle became our problem.

The water was too deep for us and from the bottom we should be unable to reach the top wire anyway. A dry sapling long enough to touch the animal was too heavy to hold in position for more than a few seconds. As fast as one wing tip was disentangled the struggling creature hooked it over again. In the end we were forced to abandon the attempt and leave it to its fate as one of natures' casualties.

On consulting Troughton's "Furred Animals of Australia" I conclude that this was the Little Reddish Fruit-bat, Pteropus scapulatus, a great wanderer up and down the east coast and far inland. It is almost exclusively a blossom feeder rather than a fruit eater and thus not a menace to orchardists.

Do You Know that some scientist now believe that the large areas of "natural" grassland forest discovered by the earliest white man were caused by periodic burning off by our early aboriginals?

CENTRAL AUSTRALIA.Impressions of Mrs. Enid Newnham.

A great many articles have been written about "The Centre" by much more able pens than mine, (including Miss Rossiter's) but I would still like to give my humble impressions of this wonderful part of our continent.

When I visited the centre recently with my husband, I found that none of the things I had read of the country had been exaggerated. There were the wonderful colours, the unique flora, the age old rocks, the grandure of the gorges and that mysterious fascination that cannot be explained, but only felt.

There was one sad thing, however, that I discovered and that was that the kangaroos, once plentiful, are now rare. In all the thousands of miles we travelled we saw only three. I enquired about it from a station owner in the area and was told, I quote "They just arn't around any more." At least we saw lots of birds. Not being a "bird-o", I couldn't identify them, but I did recognize the lovely green parrots, pink and grey cockatoos, the plumed pidgeon, the finches and, of course, the hawks and wedge tail eagles.

It was the trees I loved the most. First and foremost, the white beauty of the Ghost Gums (Eucalyptus papuana), rising above the rugged glowing rocks, or reflecting in the clear water in the gorges. Also amongst the rocks, were the White Cyprus Pine (Callitrus huegelii) and in a few places, native palms.

Very plentiful now, after a couple of good rainfall years, are the very attractive Desert Poplars. The queer twisted Corkwood trees, or Hakoas, were covered in their yellow-green pendulous flowers. These trees live to a great age, and their blooms, which are rich in nectar were used by the Aborigines. Amongst other edible plants for the Aboriginies were the Wild Fig, or Rock Fig (Ficus platypoda) and the Wild Orange (Capparis mitchelli), but it is difficult to imagine how they could have been palatable to the Aboriginies, as they are hard, dry and full of seeds.

On the red sandy plains grow the Mulgas. Perhaps the commonest of these is Acacia aneura, but also numerous are the broad leaf Mulga or Witchetty Bush, so named because the Witchetty Grubs are often found beneath the roots. The graceful Desert Willow or Weeping Myall and the Gidgee tree (Acacia cambagei) still appear plentiful around Alice Springs. Beefwood trees are less numerous, but there are many River Red Gums, called Water Gums locally, along the dry water courses. Beside the roads the majestic Desert Oak (Casuarina decasneana) rises above the silver-grey foliage of the White Wood trees and Desert Grevilleas (Grevillea juncifolia).

Everywhere the ground is covered with Spinifex, amongst the rocks, the sand and the gibbers. One species called the

Porcupine Spinifex is certainly well named and of course, in the more arid areas, the Salt Bush predominates.

In the early spring, the ground becomes covered with brilliant patches of colour. Clumps of Blue Vetch, Paper Daisies, Swainsonia burkei and the quaint little lilac coloured flowers called Lamb's Tails (Ptilotus exaltatus). Bushes of the native Hibiscus flourish beside the golden bushes of Acacias and the brilliant red of Wild Hops. Then, finally, although they are harder to find, there are the emblem flowers of Northern Territory, "Sturts Desert Rose".

TYERS NATURE DIARY

More notes from Mrs. Joy Johnstone.

22.5.69. A small blue-grey and brown Dove landed on the side fence of the garden this morning. It stayed long enough for Jack to come from the sunroom and agree that I wasn't imagining it. Then a sparrow flew at it and both disappeared behind the Tasmanian Bluegum tree. The Dove had no red colouring about its eyes - Peaceful Dove? It seemed to be alone, so perhaps was an aviary escapee.

26.5.69. Quite a flock of White-fronted Chats was sighted between the S.E.C. Extension Mine and the proposed Wirilda National Park today. Twenty two were counted as they perched briefly on three panels of fencing.

At least three coloured and three brown Flame Robins, a pair of Scarlet Robins and several Blue Wrens were seen along the same roadside. Perhaps this more recently cleared land provides food more to the liking of some native birds than long established pastures do.

2.6.69. The flood has brought a new bird species for my Tyers birdlist - Silver Gull! Two were seen near the edge of the floodwaters along our southern boundary this morning.

NATURE NOTE from Mr Jack Brooks.

Among the many things taken for granted is that little ferns grow on big ones. But how many kinds do grow together at one place. For instance, recently at a spot not yet noted for anything special, a Shiny Shield-fern was noticed growing on the ground at the foot of a Soft Treefern, on the trunk of which were Common Shield, Mother Spleenwort, Leatery Shield, Kangaroo and Veined Bristle ferns plus a Clematis. One wonders what would be the record for, say, within a 6ft circle.

PLANTS OF THE ROSEDALE SOUTH AREA.

The following list has been compiled from information given by Mr. and Mrs. Thompson, who have played a major part in the survey of the area.

There are two areas under survey and are:-

1. Along Lime Pit Road (L)
2. Along Chessum Road (C)

Surveys of both areas are incomplete and will partially account for the apparent differences in vegetation of the two areas.

Acacia armata	Hedge Wattle	L C
" botrycephala	Sunshine Wattle	L C
" brownii	Winter Wattle	L C
" diffusa	Spreading Wattle	L C
" mearnsii	Late Black Wattle	L
" melanoxydon	Blackwood	L
" mucronata	Variable Sallow Wattle	L
" oxycedrus	Spike Wattle	L C
" suaveolens	Sweet Wattle	L C
" verticillata	Prickly Moses	C
Acrotriche serrulata	Honey Pots	L C
Amperea xiphoclada	Broom Spurge	L C
Anguillaria dioica	Early Nancy	C
Astroloma humifusum	Cranberry Heath	L C
Astrotricha parviflora	Small-leaf Starhair	L
Anispogon avenaceus	Oat Spear-grass	L
Banksia marginata	Silver Banksia	L C
" serrata	Saw Banksia	L C
Billardiera scandens	Appleberry	L
Boronia anemonifolia	Toothed Boronia	L C
Bossiaea cinerea	Showy Bossiaea	L C
" heterophylla	Variable Bossiaea	L C
" prostrata	Creeping Bossiaea	L C
Brachycome angustifolia	Daisy	L C
var. heterophylla		
Brachyloma daphnoides	Daphne Heath	L
Brunonia australis	Blue Pincushion	L C
Burchardia umbellata	Milkmaids	L C
Caesia parviflora	Pale Grass Lily	L C
Callistemon citrinus	Red Bottlebrush	L
Calytrix tetragona	Common Fringe Myrtle	L
Cassinia aculeata	Dogwood	L
Cassytha glabella	Tangled Dodderlaurel	L C
" pubescens	Downy Dodderlaurel	C
Casuarina distyla	Shrubby Sheoke	L
" stricta	Sheoke	L
" sp.		C
Caustis pentandra	Thick Twist-rope	L
Centaurium pulchellum	Austral Centaury	L C
Centrolepis strigosa	Hairy Centrolepis	L

<i>Chamaescilla corymbosa</i>	Blue Star	C
<i>Clematis glycinoides</i>	Forest Clematis	C
<i>Comesperma calymega</i>	Blue-spike Milkwort	L
" <i>volubile</i>	Love Creeper	L
<i>Correa reflexa</i>	Correa	L C
<i>Craspedia uniflora</i>	Billy Buttons	C
<i>Cymbonotus lawsonianus</i>	Austral Bears Bar	L
<i>Dampiera stricta</i>	Blue Dampiera	L C
<i>Daviesia latifolia</i>	Hop Bitter Pea	C
<i>Dianella laevis</i>	Pale Flax-lily	L
" <i>revoluta</i>	Black-anthered Flax-lily	L C
<i>Dichondra repens</i>	Kidneyweed	L C
<i>Dichopogon strictus</i>	Chocolate Lily	C
<i>Dillwynia glaberrima</i>	Heathy Parrot Pea	L C
" <i>sericea</i>	Showy Parrot Pea	L C
<i>Drosera auriculata</i>	Erricnellam	L C?
" <i>planchonii</i>	Climbing Sundew	L C
" <i>pygmaea</i>	Little Sundew	L
" <i>whittakeri</i>	Scented Sundew	L
<i>Epacris impressa</i>	Common Heath	L C
" <i>microphylla</i>	Coral Heath	L
<i>Epilobium juncia</i>	Hairy Willow-herb	L
<i>Eucalyptus bridgesiana</i>	Applebox	L C
" <i>consideniana</i>	Yertchuk	L C
" <i>dives</i>	Blue Peppermint	L C?
" <i>obliqua</i>	Messmate	L C
" <i>radiata</i>	Peppermint	L
" <i>melliodora</i>	Yellow Box	L
<i>Exocarpos cupressiformis</i>	Cherry Ballart	L
<i>Gahnia radula</i>	Thatch Saw-sedge	L
<i>Geranium solanderi</i>	Cutleaf Crane's Bill	L
<i>Gleichenia circinnata</i>	Wiry Coral Fern	C
<i>Glycine clandestina</i>	Glycine	L
<i>Gnaphalium involucratum</i>	Common Cudweed	L
" <i>japonicum</i>	Common Cudweed	L
" <i>luteo-album</i>	Jersey Cudweed	L
<i>Goodenia humilis</i>	Swamp Goodenia	L
<i>Gompholobium huegelii</i>	Karralla	L C
" <i>latifolium</i>	Wedge Pea	L C
<i>Grevillea chrysophaea</i>	Golden Grevillea	L C
<i>Hakea nodosa</i>	Yellow Hakea	C
" <i>ulicina</i>	Furze Hakea	L
<i>Haloragis micrantha</i>	Creeping Raspwort	L C
" <i>tetragyna</i>	Raspwort	L C
<i>Hardenbergia violacea</i>	Purple Coral Pea	L C
<i>Helichrysum apiculatum</i>	Common Everlasting	L
" <i>bracteatum</i>	Golden Everlasting	L
" <i>obtusifolium</i>	White Everlasting	L
" <i>scorpioides</i>	Curling Everlasting	L C
<i>Hibbertia calycina</i>	Sharp Guinea-flower	L
" <i>acicularis</i>	Prickly Guinea-flower	L C
" <i>stricta</i>	Erect Guinea-flower	L C

Hibbertia virgata	Twiggy Guinea-flower	L C
Hovea heterophylla	Common Hovea	L C
Hydrocotyle hirta	Hairy Pennywort	C?
" laxiflora	Stinking Pennywort	L C
Hypericum gramineum	Small St. Johns Wort	C
Hypolaena fastigiata	Tassel Rope-rush	L
Hypoxis glabella	Yellow Star	L
Indigofera australis	Indigo	L
Isotoma fluviatilis	Swamp Isotome	L C
Kennedyia prostrata	Running Postman	L C
Lagenophora gracilis	Slender Bottle Daisy	L
Laxmannia sessiliflora	Dwarf Wire-lily	L
Leptospermum ericoides	Burgan	C
" juniperinum	Manuka	L
" lanigerum	Woolly Teatree	C
" myrsinoides	Silky Teatree	L C
Leucopogon ericoides	Pink Beard Heath	L C
" virgatus	Common Beard Heath	L C
Lindsaya linearis	Screw Fern	L C
Lomandra filiformis	Wattle Matrush	L C
" glauca	Pale Matrush	L C
" longifolia	Long Matrush	L C
Marianthus procumbens	White Marianth	L
Melaleuca ericifolia	Swamp Paperbark	L
" Squarosa	Scented Paperbark	L C
Microseris lanceolata	Yam	C
Monotoca scoparia	Prickly Broom Heath	L C
Myriophyllum propinquum	Water Milfoil	L
Olearia lirata	Snow Daisy-bush	L
" myrsinoides	Silky Daisy-bush	L
Opercularia varia		L C
Oxalis corniculata	Yellow Wood-sorrel	C
Paterosnia fragilis	Short Purple Flag	L
Pelargonium australe	Wild Geranium	L
Persoonia juniperina	Prickly Geebung	L
Phyllanthus hirtellus	Rough Spurge	L
Pimelea humilis	Dwarf Riceflower	L C
" linifolia	Slender Riceflower	L C
Platylobium obtusangulum	Common Flat Pea	L
Platysace lanceolatum	Shrubby Platysace	L
" heterophylla	Slender Platysace	L
Poa australis	Tussock Grass	L
Pomax umbellata	Pomax	C
Poranthera microphylla	Small Poranthera	L C
Prostanthera denticulata	Rough Mint Bush	L C
Pultenea paleacea	Bush Pea	C
Restio fustigiata	Tassel Cord-rush	C
" tetraphyllus	Tassel Cord-rush	C?
Ricinocarpos pinifolius	Wedding Bush	L C
Scaevola ramosissima	Fan Flower	C
Schizaea asperula	Rough Comb Fern	L
Selaginella uliginosa	Selagenella	L C

Selliera radicans	Swamp Weed	L
Senecio biserratus	Cotton Fireweed	L
" glomeratus	Rough Fireweed	L
Sowerbaea juncea	Rush Lily	L C
Sprengelia incarnata	Pink Swamp Heath	C
Stackhousia manogyna	Candles	C
Sticherus sp	Fan-fern	L
Stipa sp	Spear-grass	C
Stylidium graminifolium	Grass Trigger Plant	C
Stypandra caespitosa	Tufted Blue-lily	L
Tetratheca ciliata	Pink-bells	L
" pilosa	Hairy Pink-bells	L C
Thysanotus patersonii	Twining Fringe-lily	L C
Tracheme anisocarpa	Wild Parsnip	L
Villarsia exaltata	Yellow Marsh Flower	L C
Viminaria juncea	Golden Spray	C
Tricoryne elatior	Yellow Rush Lily	L
Veronica calycina	Cup Speedwell	C?
Viola hederacea	Wild Violet	L C
Wahlenbergia sp	Bluebell	L C
Xanthorrhoea minor	Small Grass Tree	L
Xanthosia dissecta	Cutleaf Xanthosia	L

ORCHIDS

Acianthus exsertus	Gnat Orchid	L
" caudatus	Mayfly Orchid	L
" reniformis	Mosquitoe Orchid	L C
Caladenia carnea	Pink Fingers	L C
" dilatata	Fringed Spider	C
" sp	Spider	L
Caleana major	Flying Duck	L C
Calochilus robertsonii	Purplish Beard	L
Chiloglottis reflexa	Autumn Bird	L
Corybas diemenicus	Slatey Helmet	L
" sp	Helmet	C
Dipodium punctatum	Hyacinth	L
Diuris longifolia	Wallflower	C
" sulphurea	Tiger	C
Eriochilus cuculatus	Parson's Bands	L
Glossodia major	Waxlip	L C
Lyperanthus nigricans	Red Beak	L C
Pterostylis alata	Striped Greenhood	L
" concinna	Trim Greenhood	L
" curta	Blunt Greenhood	L
" longifolia	Tall Greenhood	L
" nana	Dwarf Greenhood	L
" nutans	Nodding Greenhood	L C
" parviflora	Tiny Greenhood	L
" pedoglossa	Prawn Greenhood	L
" pedunculata	Maroonhood	L
Spiranthes sinensis	Austral Lady's Tresses	L

Thelymitra pauciflora
" rubra

Small Sun Orchid
Pink Sun

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COLLECTION & PRESERVATION OF HERBARIUM MATERIAL

Continued

from Page 8 of Issue No.69. Published with the kind permission of the National Herbarium of Victoria.

SPECIAL TREATMENTS

The notes previously published apply to all higher plants, but amongst these are two groups which require more specialised, though simple treatment.

1. AQUATICS. (excluding algae).

Many aquatics with finely dissected and delicate parts "clump" together unrecognisably when removed from water and placed between papers in the normal way. To display their parts simply float the specimen in water, slide a sheet of clear white paper under the water beneath it, and slowly lift upwards. The specimen will spread over the sheet as it is lifted from the water, and any small portions of "clumping" can then be removed by applying a localised splash of water on the paper and floating the plant parts into position with gentle levering by a needle or fine-pointed object. The wet paper, with specimen, is then placed between newspaper and dried in the usual way. Pressing papers surrounding aquatics which have been so treated soon become saturated, and should be changed every few hours until most of the free water has been absorbed. Do not remove the original sheet of white paper.

Never allow aquatics to dry before they are placed in the pressing papers. They can be easily carried from the field to a convenient place for processing, in plastic bags or containers holding water.

2. SUCCULENTS.

Plants having thick fleshy leaves and stems e.g. parakeelya, pigface and stonecrops, refuse to dry out, and may remain alive for weeks or months after picking, even when under heavy pressure. These must be killed before being prepared for an herbarium collection, and this is done by immersing the whole specimen in boiling water for a few seconds. It is then pressed normally. Succulents having exceedingly swollen juicy stems and branches, notably cacti, should be sliced lengthwise and all the wet pulp carefully scraped away. The remaining thin rind with its external clusters of spines, etc., is then pressed in the usual way.

TWO NOTES ON FUNGI.

From Mrs. Ellen Lyndon.

Tricholoma nudum, the Blewit or Blue Cap, is a very attractive mauve mushroom regarded highly in Europe and America as one of the best eating varieties. It is considered to be an introduction to this country and is usually to be found amongst the leaf mould under oak trees. The interesting thing about it is that it is apparently spreading and living quite happily amongst Australian trees. I found a splendid colony in a cattle camp under Silver Stringybarks (Eucalyptus cephalocarpa) out on the plains country between dumbalk and Stony Creek. They turned up again this season on sand dunes on Yanakie Common and later I found them under the teatree at the top of a dune facing the beach at Inverloch. We have proved their edibility but are not impressed with their palatability.

The lovely fluffy-looking Hericium coralloides is a member of the Hydnaceae, or toothed fungi. It lives in rotting logs and the spores are borne on long white spines or teeth, which are pendant from spreading branches. It was under observation two years in succession at Darlimurla, in a spot we all knew, but which, thanks to the dry winter and good working conditions, is now gone forever. I would like to hear from other observers who have met with this spectacular fungus in the Gippsland bush, so that we can compare notes and find out how common or rare it may be. Overseas writers speak of it as edible and good so it is probably of world wide distribution. Our example was in the butt of a fallen blackwood.

EXTRACTS OF THE L.V.F.N.C. EXECUTIVE MEETING - held on Tuesday 28th October at the home of Mr. and Mrs. Eadie.

PROPOSED CONSERVATION COUNCIL OF VICTORIA.

It was decided to ask Mr Jack Brokks if he would represent the L.V.F.N.C. at the inaugural meeting to be held in Melbourne.

LATROBE VALLEY NATURALIST.

The final design for the cover was decided upon. It is expected that the new covers will appear on the January issue.

1970 PROGRAM

A draft program was discussed at some length. The proposed speakers and leaders will be contacted and it is expected that it will be available for distribution late this year.

NEXT EXECUTIVE MEETING.

Will be held on Tuesday 2nd December at the home of Mr. and Mrs. Homann at 84 Hennessey St., Moe.

FORTHCOMING EVENTS.

----- MEETINGS -----

WARRAGUL F.N.C. -----Friday 21st November.
Speaker:- Mr. and Mrs. Les. Anderson.
Subject:- Central Australian Walkabout.

LATROBE VALLEY F.N.C. -----Friday 28th November.
Speaker:- Mrs. P.Reilly
Subject:- Birdbanding.

SALE F.N.C. -----Friday 5th December.
Speaker:- Mr. Rex Filsen.
Subject:- Lichens.

TRARALGON F.N.C. -----Friday 5th December.
Speaker:- Miss Joan Galbraith.
Subject:- Insectivorous Plants.

----- EXCURSIONS -----

WARRAGUL F.N.C. -----Sunday 23rd November.
Meeting Place:- Ranceby Church at 10.00am.
Excursion to:- Walkerville.
Subject:- Geology.

LATROBE VALLEY F.N.C. -----Saturday 29th November.
Meeting Place:- Oasis Cafe, Toongabbie at 10.00am.
Excursion to:- Stoney Creek.
Subject:- Birds.

SALE F.N.C. -----Contact Secretary for details.

TRARALGON F.N.C. -----Sunday 7th December.
Meeting Place:- Contact Secretary.
Excursion To:- Gormandale.
Subject. Botany.

(For further information of the above clubs please turn to the inside of the rear cover).

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

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179 Lloyd St.,
Moe. 3825.

Meetings commence at 7.30pm and are held at the
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SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302.
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
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Honorary Editor (J. M. Peterson)

14 Barry St.,

Morwell. 3840.

Tel. Morwell 42129.

Issue No. 72.

December 1969.

PROTECT AND ENJOY.

LATROBE VALLEY

NATURALIST.

Registered at the General Post
Office Melbourne for transmission
by Post as a periodical

10c.

1. The first group of people who are interested in the study of the history of the United States are the people who are interested in the history of the United States.

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FAREWELL TO MRS. C. JACOBSON

A Presidential message
from Mr. Ern Homann.

It is with great regret we say farewell to Mrs. Jacobson and family. We congratulate Mr. Jacobson on his promotion but we will be sorry when his family moves to Mt. Beauty.

Since joining the club, Mrs. Jacobson has placed her artistic gifts at its disposal. Do you remember the Flying Duck that adorned the early Naturalists'. This was Mrs. Jacobson's work and even in the bustle of packing up in preparation for moving she found time to design an entirely new cover. Members will find this quite outstanding.

The car sticker too was her work and has gone throughout the length and breadth of Australia and is admired wherever seen.

She has also been a great help to Miss Jean Galbraith in the forthcoming new book on wildflowers.

The club is very sorry to lose Mrs. Jacobson and it wishes her and family the very best of luck in the new environment.

WILSON'S PROMONTORY CAMP-OUT.

Report from Mrs. B. Thompson.

The camp-out was a great success. The weather was mild and no handicap to the photographers. The Prom. at the moment is a beautiful garden with the thrill of not knowing what is to be found next. It is not possible to list all the plants found flowering; but mention must be made of the beautiful Kunzea. In fact I did not keep a complete list as I was too busy looking. As New-comers to the area there was a great deal to see and much that we did not see. The colours were beautiful; the mists or clouds were near the top of the mountains most of the time and this accentuated the blues and greens below.

There were 22 campers in the group with extra visitors each day. All were delighted with the parrots who invited themselves to the meal tables both indoor and out.

The orchid list for the weekend was 18, of which 7 were completely new to us; so no need to tell of the enjoyment of the Thompson family. The rubbish tip area was the first examined and here two different spider orchids were seen - the Thick-lip Spider (Caladenia tessellata) and the Plain-lip Spider (C. clavigera). Then a wander along a nature walk over the Tidal River. After lunch the

cars took us to the Mt. Oberon car park and we walked down towards the lighthouse. Along here we found another Spider orchid - the Veined (*C. reticulata*) and a beautiful honey-coloured specimen of the Tall Leek-orchid (*Prasophyllum elatum*). Max found the Lizard Orchid (*Burnettia cuneata*) growing on the gravel track - a most unusual habitat. On our return to the top the more hardy walked towards Sealers' Cove. In the evening there was plenty of chatter before an early night was called.

On Sunday morning we went to Darby River and explored the beach finding small specimens of many colours of seaweed and cuttle-fish shells in plenty. The cliffs were "smoking" much to the delight of those who had not seen it before. The climb up the cliff was made well worth-while by the fossilized roots, etc., the evidence of an aboriginal midden and the view. On our return to the cars Mr. and Mrs. Brewster had arrived and they led us up a side road to some heathlands. The colors were beautiful with the tea-tree from white to dark pink, white everlastings, triggers, yellow pea-flowers and everlastings, blue of the blue daisy (*Olearia ciliata*) and the milkworts, purple flags, the lovely cream butterfly flag, the delicate yellow of the slender stackhousia and many others.

In the swampy areas three onion orchids were found growing plentifully - the rare *Microtis orbicularis* (some tinged with red), the Yellow Onion orchid (*M. atrata*) with its crowded flower stalk and the larger *M. biloba*. Here also were the Fairies Aprons and the delightful greenhood (*Pterostylus barbata*) - the Bearded Greenhood - displaying the long yellow hairs on its tongue. After a further wander on the heathlands admiring the Blackboys in flower, the Great Sun orchid (*Thelymitra grandiflora*) and the Dotted Sun Orchid (*T. ixioides*) and many others we reluctantly called an end to a most delightful weekend.

Orchids seen during weekend of 8/9th November.

<i>Microtis biloba</i>	Onion Orchid
" <i>atrata</i>	Yellow Onion Orchid
" <i>orbicularis</i>	Onion Orchid
<i>Pterostylis barbata</i>	Bearded Greenhood
<i>Caladenia dilatata</i>	Green-comb Spider-orchid
" <i>tessellata</i>	Thick-lip Spider-orchid
" <i>clavigera</i>	Plain-lip Spider-orchid
" <i>reticulata</i>	Veined Spider-orchid
" <i>latifolia</i>	Pink Fairies
<i>Prasophyllum elatum</i>	Tall Leek-orchid
<i>Gastrodia sesamoides</i>	Cinnamon Bells
<i>Acianthus caudatus</i>	May-fly Orchid
<i>Thelymitra flexuosa</i>	Twisted Sun-orchid
" <i>ixioides</i>	Dotted Sun-orchid
" <i>grandiflora</i>	Great Sun-orchid
<i>Burnettia cuneata</i>	Lizard Orchid

PROPOSED CAMP OUT.

Details from Excursion Secretary

Miss Nancy Rossiter.

The camp-out on Australia Day week-end, Saturday January 24th - Monday January 26th next year (1970) is to be in the Wulgulmerang area when Mr. Keith Rogers of Rockbank Station will again be our leader. On his suggestion and if the weather is favourable we hope to camp at Native Dog, about 18 miles from Rockbank Station along the new road to Benambra.

From here the energetic members hope to have a one day excursion to the Cobberas, probably on Sunday Jan 25th. The Cobberas (6000ft), Mr Rogers tells us, are of outstanding interest both scenically and botanically.

We expect all field naturalists who are free to make this trip will not want to miss such a wonderful opportunity and the L.V.F.N.C. hopes that members from Warragul, Traralgon, Sale and Bairnsdale and any other field naturalists who are interested will join us there.

If the weather is not right for the Native dog area Mr. Rogers has kindly said we may camp at Rockbank Station as in January 1968, and make day trips from there. As the site of the camp cannot be definitely fixed until immediately prior to the event a message will be left at the Wulgulmerang petrol station probably on Friday January 23rd giving last minute information re the location of the camp and any necessary directions. This petrol station is on the right hand side of the road and is the last filling up point for a number of miles. For further details contact the Excursion Secretary LV.F.N.C., Box 97, Yallourn. 3838 or telephone Yallourn 52392.

R.A.C.V. AND CONSERVATION.

By Miss Betty Kemp.

At our October general meeting, attention was drawn to articles in the September and October issues of ROYALAUTO (the official magazine of the R.A.C.V.).

The September issue referred to a survey being made of use of Wilson's Promontory National Park as part of a study for the National Parks of Victoria. It stated that a questionnaire has been prepared relating to types of groups who visit the park and their activities there and that opinions regarding park facilities and development are also sought. Copies of the questionnaire are obtainable from the Victorian Tourist Bureau, National Parks Authority, and the R.A.C.V. Head Office and Branches in the

Metropolitan area, including Dandenong, and at Morwell, and should be returned to the National Parks Authority of Victoria, Treasury Place, Melbourne, 3001.

The October article included an excellent article entitled "Victoria lags in Parklands", enumerating what we have and what we need.

This issue also contained a questionnaire relating to a survey of recreational travel by Victorian motorists and their families which is being made by the Australian Road Research Board to help in planning roadways and determining parkland needs in the future. The Board is interested in how much people travel in their vehicles at weekends to recreational areas - beaches, parklands and reserves - and also wants to know what type of facilities are most in demand. The questionnaire asked motorists to list for the coming weekend all vehicle trips made by members of their household to places outside the builtup area or to beaches within the built up area.

It so happened that the writer's copy of the Royalauto arrived just in time to include in the questionnaire her October 18th trip with two other Field Nats. to the botanical survey area on the Limepit Road at Rosedale South. It is hoped that other R.A.C.V. members who made the trip were able to do the same.

The R.A.C.V. is to be commended for its interest and support in the matter of national parks and nature conservation, and it is gratifying to know that articles like the foregoing can reach its 500,000 members all over Victoria and possibly beyond. It is suggested that all interested in conservation, which includes Field Nats. individually and corporately, should make the maximum use and support of this avenue of publicity by way of appropriate short articles of letters and co-operation in relevant surveys such as the two mentioned above.

IN THE WEST BRANCH OF THE TARWIN RIVER.

An unusual find recorded by Heather Brewster.

One day when we were swimming in the bend of the river I put my foot on something as I was climbing out. I screamed because it wriggled.

Thinking it was an eel and would do for lunch, I put my hand down and grabbed it. After getting it out and studying it I knew it could not be an eel as it had holes down its sides. Then I placed it in my towel to take it home to identify it.

It was still alive when we got home, so we put it in a bucket of water. It sucked its mouth onto the side of the bucket. At first we could not get it off as it sucked so hard, but as it

got weaker it was easy to pull it off. Dad said it was a lamprey. It was about twelve inches long and had small holes along each side.

We looked in "Australian Nature Studies" by J.A. Leach, D.Sc. It said: "Lampreys have seven small gill-holes, no jaws or paired limbs. The backbone is a rod of gristle. Because of the round, sucker-like mouth, the class name is Cyclostomata. Two families are represented in Australia."

I had caught "the small Mordacia (mordax, voracious). It rasps the flesh off with the tongue-teeth while clinging with the sucker-like mouth armed with horny teeth. The one nostril opens near the eyes. ... Lampreys enter rivers to lay eggs."

Dad has had lampreys pumped up in the water supply some years ago, but only small ones.

"ORCHIDS OF AUSTRALIA" - By W.H.Nicholls, edited by D.L.Jones and T.B.Muir. Published by Thomas Nelson (Australia) Ltd. Price \$30.00.

Book review by Miss Jean Galbraith

Many years ago, when the first parts of W.H.Nicholls "Orchids of Australia" were published by Georgian House, some of us thought longingly of a beautiful publication which was quite beyond our means.

Only four parts were published, and at a price which would have meant the price of the complete set would be £150 - that is \$300.00.

It is worth keeping that in mind in considering the achievement of Messrs. Nelsons in publishing the whole set, complete with text and 476 colour plates 12 $\frac{3}{4}$ ins by 9 $\frac{3}{4}$ ins (a few double that size, occupying 2 pages) in one volume priced at \$30.00. It is a credit to the publishers, as the first four parts (included in this new volume) were to the vision of Georgian House.

More than half of the known species of Australian orchids are illustrated. The centre of each plate is occupied by a life size painting of one species; or sometimes more than one specimen if the species is variable, while around it there are enlarged paintings of all parts of the flower. These were painted by the artist with a magnifying glass in one hand and a brush in the other, and while the larger orchids are spectacular one is inclined to marvel most at the very small species, where exquisite little paintings show details of colour and intricate form which some of us can hardly see even under magnification.

The book is a land mark in the course of natural history publications in Australia and should become even more valuable as time passes.

One hundred and twenty eight pages of letterpress precede the plates and this has been brought up to date, by the careful work of the co-editors Messrs. D.L.Jones and T.B.Muir who have added notes where necessary, and provided cross references which make references from plates to text and text to plates easy.

SOME WESTERN AUSTRALIAN ORCHIDS.

By Ern Homann.

On my recent trip to Western Australia with a party of the Field Naturalists' Club of Victoria, I was impressed with the range of orchids seen. We travelled north by bus stopping wherever we saw a showy display of wildflowers. We went north of the Murchison River, then south and east through the Ma llee type wheatlands till we reached the southern coast near Albany and then returned to Perth keeping fairly close to the western coast. We were travelling by bus for over a fortnight and each day we found orchids. The greatest profusion of flowers and species were seen along the coast but the semi-arid wheatlands, in the grip of a drought, had their orchids too.

Familiar species were seen in the West. The yellow Thelymitra antennifera a sun orchid with appendages to the column like rabbits' ears was common as it is in many parts of Victoria. Diuris longifolia - Donkey Orchid in the West - was common, well grown and more strongly coloured than ours. Acianthus reniformis was seen and seemed little different from the ones we know. Lyperanthus nigricans - Redbeaks - was frequently a sturdy plant with many flowers.

The Caladenia group was the one that was best represented on our trip. There was the blue C. deformis, the fringed spider C. dilatata more brightly coloured and with a longer fringe than Victorian plants. C. filamentosa - Daddy Long Legs - was very variable in colour - red, yellow, white and the very long thin flower parts were up to 4 inches long! Widespread was C. latifolia - Pink Fairies- which in Victoria is mostly coastal but which was at home in the sand plains far inland in the west. The common spider C. patersonii. was certainly common there and was always white in colour. Greenhoods were not very common and the only one seen that we have also in Victoria was Pterostylis vittata.

Unfamiliar species were many. The only other sun orchid seen was Thelymitra campanulata which reminded me very much of T. venosa of the mountain sphagnum bogs, but which grows in the dry

Mallee areas in the west. The only other Diuris discovered was D. carinata much like our Leopard Orchid but not spotted. We saw three species of Prasophyllum, P. ellipticus, P. fimbria and P. gracillimum which looked much as Leek Orchids always do until examined under a magnifying glass, when differences in the labellum become apparent.

The quaintest orchid seen was a Hammer Orchid, Drakaea fitzgeraldii, which is a close relative of our Elbow Orchid. Instead of having hairy appendages at the extreme end of its arm like the Elbow Orchid there is quite a large ovoid mass, the head of the hammer. This with its arm - or handle - is quite free-moving. When touched it swings downward returning to its original place immediately.

Eriochilus scaber was very like Parsons' Bands except that it was pink in colour. An orchid like our Brown Beaks was Lyperanthus serratus, Rattle Beaks. It did rattle too if held and shaken close to the ear.

Spiders that we saw that do not occur in Victoria were Caladenia doreenii, C. discoidea, C. ferruginea and C. pectinata. The first three had differences in the labellum, the shape, whether fringed or not and the placing and shape of the calli on the labellum which determined the species. The last C. pectinata, the King Spider, was a handsome fellow an occasional specimen being 2'6" high with 3 - 4 flowers on the stem and with the floral segments extending over a diameter of a foot. The most common Caladenia seen was C. flava, the Primrose Orchid, seen in great numbers everywhere, its bright yellow colour clear against the red sand. There were two blue Caladenias apart from C. deformis already mentioned. These were C. gemmata and C. sericea. At a casual glance these seemed like Waxlips. The first was a low-growing plant with a single large flower, the second bore several large flowers. Apart from those already mentioned we saw three species of pink caladenias. These were C. hirta pinkish white, waxy and called the Sugar Plum Orchid in the West. C. repens which can best be described as a miniature C. latifolia and C. unita very common after fires and like our C. carnea except that the lateral sepals are fused together for most of their length.

The beautiful Enamel Orchid well deserves its common name as the whole flower shines in the sun as if enamelled and polished in shades of blue. There are four species which formerly were classed as Glossodia but have now been given a genus of their own. The species we saw was Erythranthera emarginata.

The last two species in the list were Greenhoods. One was like our Pterostylis barbata but was more robust and had a labellum somewhat like a feather. This was P. turfosa. When is a Greenhood not a Greenhood? When its! P. recurva, the Jug Orchid. This quaint species, instead of having the dorsal sepal arching over to form a hood had it turning back to form a lip. The whole

orchid is open from above, most peculiar for a Greenhood.

We saw a wonderful display of orchids at a wildflower show in Albany. There were over 60 species on display ranging from tiny species of *Trasophyllum* to gigantic spiders. It was quite outstanding.

I would like to take this opportunity to thank the many members for their good wishes during my recent illness. These good wishes were expressed in so many ways - flowers, cards, letters, visits and telephone messages to name a few. They came from near and far. They have brought home to me the fact that I have a lot of good friends among naturalists - something which I greatly value and has without doubt hastened my recovery.

THANK YOU.

Jim Peterson.

A. G. & E. Peterson

S

A Happy New Year.

Latrobe Valley Naturalist.

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1944-1945
 1946-1947
 1948-1949

18th January	11th night
20th/21st "	Camp-out - Aldenham, Lincoln
27th February	D.C. Barton - "Hillier" in "Hillier"
28th "	Working Bee at Hillier, Lincoln
15th March	Photoflare 70
5th April	Annual Meeting - Lincoln night
4th "	Excursion to Lincoln's Great Hall - Mrs. Cooper
24th April	Mr. Alan Ward, "Hillier" in "Hillier"
25th "	Excursion to Hillier, Lincoln, Lincoln - Mrs. Cooper
22nd May	Mrs. E.B. Anderson, "Hillier" in "Hillier"
24th "	Mrs. Anderson will lead the excursion
26th June	Speaker from the Haver Gorge, Lincoln
27th "	Excursion to Lincoln to be decided on
24th July	Mrs. Roy Cooper on the subject of "Hillier"
25th "	Mrs. Cooper will be asked to lead the excursion
28th August	Speaker on the subject of "Hillier"
29th "	Excursion to be decided on with speaker
25th September	Mrs. Ann Fordy on the subject of "Hillier"
26th "	Mrs. Fordy will lead the excursion
28th "	

JANUARY, 1970

ISSUE No. 73.

Lalrobo Valley Naturalist



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REGISTERED AT THE GENERAL POST OFFICE MELBOURNE FOR TRANSMISSION BY POST AS A PERIODICAL

EXCURSION TO STONEY CREEK AREA - Nov. 29th 1969.
Reported by Mrs. M. Galbraith.

We were fortunate in getting a fine but cool day for our bird day. After meeting at Toongabbie where we listed White-backed Magpies, Magpie Larks, a pair of Galahs and Starlings we were led by Frank Jones across the Cowwarr Weir to our first stopping place on the hillside above Stoney Creek. The country here is much drier than the surrounding areas and the absence of undergrowth makes it easy to see and follow birds. The timber is Red Ironbark (Eucalyptus sideroxylon) and Red Stringybark (E. macrorhyncha) with some Box, probably Apple Box (E. bridgesiana). We were able to see such birds as the Red-capped Robin and the White-winged Chough which are rare in the wetter areas.

Frank Jones had found the nest of the Red-capped Robin so we were assured they are breeding here. We had an excellent view of the male which few had sighted here before. The female appears all brown but Mrs. Reilly, our expert from the Bird-banding Group of V.O.R.G., told us the female has a pink flush on the breast that can be seen when handled.

Frank Jones pointed out a large red mud nest perched on the limb of a Stringy which belonged to the White-winged Choughs. They had reared their young but the nests are so substantial they remain intact for several seasons.

We could hear the rolling call of the Olive-backed Oriole all the time we were on the hill and Frank had found the nest and we all had a good view of it high up on a limb with stringy bark hanging loosely from it. The bird was sitting.

A Grey Thrush had chosen a hollow low down in an old gum tree to build his home and there were four young in it. The Thrush sang close at hand.

As we followed in Mr. Jones' direction towards a Buff tailed Thornbill's nesting site we stirred up a family of dainty little Painted Quails*. They were in quite thick bush and only flew a few yards then ran in and out among the trees so we had a good look at them. There appeared to be three young and a larger one but probably more. They were so beautifully camouflaged among the fallen leaves as they were all fawn and black stripes.

The Buff-tails were feeding young in a nest with a side entrance, wedged in between a piece of bark and the trunk of a sapling. They favour this site and the Little Thornbill hangs its nest in the outer leaves; that is the best way to tell the two species apart.

Next we were shown another rare bird's nest. The Leaden Flycatchers were building high up on the dry limb of a Box.

The neat grey and black male bird visited the tiny round nest several times as we watched.

Birds noted on this hillside were:- Crimson Rosella, White-winged Choughs, Willie Wagtail, Red-capped Robin, Scarlet Robin, Olive-backed Oriole, Grey Thrush, Rufous Whistler, Buff-tailed Thornbill, Painted Quail, Leaden Flycatcher, White-throated Tree-creeper and the Kookaburra.

After lunch we drove down to Stoney Creek where we set up the bird nets. First bird caught was a male Blue Wren which have a wonderful blue-black sheen on their breast when seen close up. Mrs. Reilly showed us how to hold a tiny bird without hurting it. The Blue Wren only weighs 9 grams (one third ounce).

Later there were female Rufous Whistlers, Silver-eyes and some Red-browed Firetails caught. Mrs. Reilly found there was a brooding patch on the breast of some of the birds which showed they were sitting on eggs. This is a little bare patch where the bird moults to warm the eggs against her skin as feathers are insulating and keep body-heat in. Down at the water's edge a family of Grey Fantails played about and the Rufous Whistlers sang most beautifully. There were several Honeyeaters darting in and out of the burgan which was snowed over in bloom, probably Yellow-winged Honeyeaters.

Other Birds observed here were:- Black-faced Cuckoo Shrikes, Brown Thornbills, White-browed Scrub Wrens, Welcome Swallow, Gold Finches, Spotted Pardalote and a Whistling Eagle circling above.

On the drive there and back we saw:- Little Pied Cormorant, White-faced Heron, Rosellas, three Kestrels, Ravens, Noisy Miner, White Cockatoo and a Ground Lark. We noticed the absence of Honeyeaters usually plentiful in this area. Probably the main flowering of native plants is over and the Honeyeaters have flown to other parts. We returned home very satisfied with 37 birds listed, 6 nests and half a dozen more birds heard but not seen.

*(We were in some doubt about the identity of these tiny quail when we found Leach says 8" but 2 other bird books give the length as $6\frac{1}{4}$ - $9\frac{1}{4}$ " and as this is the only forest species we feel sure they were the Painted).

On January 2nd this year I attempted to visit the hill mentioned by Mrs. Galbraith; it being also a good orchid spot. After the heavy rains of the previous day (local estimates were between 3 and 4 inches) we were unable to cross at the Cowwarr Weir. Detouring around the flats we passed a number of places where the water was still washing across the road. Nearby fences had debris

hanging from the top wires indicating the huge quantity of ^{water} which flooded through these flats.

Our progress was stopped at the Stoney Creek bridge. Trees that had been standing nearby were washed across the road. Two spans of the bridge had trees solidly packed against it. The creek, still a raging torrent, had washed a new course around the end of the bridge taking the road with it. Most of the shrubbery near the banks had been flattened. Small birds, including wrens, could be heard in the little that remained - making quite a noise and still very agitated. I find it hard to believe that this was the quiet, placid, little Stoney Creek of previous visits.

(Editor).

AN INSTITUTE OF FORESTERS FIELD DAY.

Reported by Mrs. Bon Thompson

On Sunday the 23rd November members of our club were invited to join the Institute of Foresters members on their annual field day to join in the general discussion. The excursion was to Mt. Baw Baw. At their meetings over the last twelve months the Foresters have been discussing the multiple uses of forests.

The first stop of the excursion was at the big tree. This is the remains of a very large Mountain Ash that had fallen and much of it had been used. However the butt still remains because it was not solid and therefore not usable at the mills. The remaining section is 42 ft. long and 27ft. in girth at the widest part. If solid, it would contain 24,000 super feet (HLV), enough timber for two weatherboard houses. This tree gives an idea of the timber that can grow in our forests if not attacked by fire, etc. At this stop Mr. Dyer addressed the group and gave a short history of milling in the area since the disastrous 1939 fires. Mr. Dyer's family have been in the area since before the fires and there were five timber mills there after the fires.

Then Mr. Ken Nicholls, District Forestry Officer for the area, discussed the forest at present. He showed a map that marked the areas of regeneration after the fires. There were large areas of Mountain Ash (Eucalypts regnans) with some areas of wattle (Acacia dealbata) where a second fire had killed the regeneration of Ash before seeds had matured and distributed. In adjacent areas were stands of Woolly Butt (Eu. delegatensis) and Shiny Gum (Eu. nitens). Mr. Nichols said it was time to thin some of the Mountain Ash and this would be commenced next year. The timber will be taken out with a minimum of despoiling of scenic attractions.

We then proceeded to the car park for lunch. Then on to the top of Mt. Baw Baw where much building has taken place in

the two years since we were there last.

Here Mr. Stan Butler, Divisional Officer of the Forests Commission controls the Alpine Reserve which comprises 20,000 acres above 4,000 ft. The bulk of this area is permanent forest and the rest protected forest which the Land's Department has agreed to let come under the Committee of Management. There is a Committee of Management of the Alpine Reserve with the Minister of Fuel and Power, Mr. Balfour, as chairman and representatives of the Forests Commission and other Government departments, e.g. Lands Department, State Rivers, and others and also three representatives of the Ski Club of Victoria. Finance comes from parking fees, government grants, the Forests Commission, the Tourist Development league and loans which must be paid back from levees on the public in the Alpine Village. The water scheme alone cost \$30,000. The big problem of this committee is to provide essential services for a large number of people; but only for a short space of time. Some idea of the numbers can be gauged from the fact that 500 cars have been in the car park on one day and this would average at least 2,000 people. Public conveniences and rubbish collection for such numbers are some of the problems. The Committee also controls the type of buildings erected and only bona fide ski clubs can build in the area. A few commercial establishments cater for the general public.

Mr. Butler also mentioned rules and regulations necessary for the protection of the area including no camping in the Reserve during summer for fear of fire. Mr. Nicholls mentioned the management of the forest in the area and that an effort was being made to establish the Tasmanian Alpine Eucalypt there.

Mr. Colin Hutchinson, of the National Parks Authority spoke on the multiple uses of National Parks - particularly in forest areas. The National Parks Authority would like to see each National Park divided into five areas:-

Firstly an area of semi-permanent residences, motels, etc. on the edge of the park.

Secondly recreational areas with some development - camping and caravan parks, etc.

Then the preservation of scenic areas and access roads to these.

The fourth area would be restricted to walking paths only for the use of hikers, field naturalists and others. And the last area must remain untouched by the public.

The capacity of a park would be ascertained and when the number was reached for any day the park would be closed to further entry. If the park tries to expand to contain an unlimited number of people then its purpose will be lost as the further development would infringe on another area and finally destroy that

which was originally preserved. These are high ideals but we hope they may be attained

Finally members wandered in the area and although not many plants were flowering at this time the views were enjoyed. However we did find the Eyebright (Euphrasia scabra) in full flower and the Mountain Caladenia (Caladenia lyallii), two beard heaths, a mint bush (Prostanthera cuneata), the Pineapple grass (Astelia alpina) and the Mountain Pepper (Drymis xerophila) in bud and also with berries on it. The Baw Baw Berry (Wittsteiner vacciniacea) was only in bud then.

In my opinion the only damage done to the area was around the ski lodges and runs and by the heavy machinery. Away from this area we could find little evidence of the large numbers of people who had been present in the winter time.

As Field Naturalists we were very grateful for the opportunity to be present on this day and to learn what the men who work in our forests are doing for their continuation and preservation. As a club we realise that conservation entails management of a high degree to preserve large areas of any type.

We thank the foresters for a most enjoyable day.

MY IMPRESSIONS OF THE LITTLE DESERT.

From Mrs. Melinda Wildes

I had the good fortune to make a rushed trip to the Little Desert. It was a wonderful experience and although November is considered a bit late to see the wildflowers at their best it to me was a most worthwhile experience. There is an access road which goes through the centre of the desert - twenty three miles long and mostly sand. We were advised not to go by car, as only four wheel drive vehicles could get through, but we decided we would try as I was most anxious to see Broughtons Waterhole on this road.

The trip was not without moments of stress as we swerved and ploughed through the sand but the wildflowers had to be seen to be believed. We could stop only to have a close look at the flowers when we came to a hard patch in the ground, which was not very often but when we did we were just overawed by the beauty and diversity of the flowers. Reds, Pinks, Yellows, White, Mauve and Blue, just a sea of colour, heights and textures.

Some of the flowers and trees could have been:-
Calytrix alpestris, Baeckea crassifolia, Hibbertia virgata,
Loudonia behrii, Pimelea octophylla, Dampiera lanceolata, Micro-
myrtus ciliatus, Banksia ornata, Callitris verrucosa, Eucalyptus

leucoxylon, Grevillea pterosperma, Eucalyptus incrassata and Melaleuca pubescens. There were Everlastings and flowers galore and I have no idea of their names.

Three special looking shrubs I would very much like to know their names. The first a shrub with a top knot of bright blue daisy like flowers. It was a skeleton like shrub. I think it must be a native as it was miles in along the access road. Another prostrate shrub was growing around Broughtons Waterhole. It appeared to me to be a melaleuca. The third a lovely dark pink flowered shrub with lovely wands of flowers; it could also be a melaleuca, but I have searched through my native flowers books, and I have many, and I cant find these.

Needless to say we didn't see another person or vehicle on our trip, not even at the waterhole, so it was just as well we did not get bogged.

Have checked with Miss Galbraith who suggests that these shrubs may be:-

Firstly -- The Splendid Daisy Bush (Olearia magniflora)
(Illustrated in "Australian Flora in Colour"
by Cochrane, Furher, Rotherham & Willis).

Second --- "Muntries" (Kunzia pomifera)
(Illustrated in Wildflowers of S.E.Aust.
by Jutte Hosel Periwinkle series)

Third -- Violet Honey-myrtle (Melaleuca wilsonii)
(Illustrated in both above books)

Editor

FOSSIL BIRD TRACKS

From Mrs. Eulalie Brewster.

After the South Gippsland members of the L.V.F.N.C. read in "The Victorian Naturalist" for May 1969 of the Fossil Bird Tracks which had been discovered at Lower Tarwin it is needless to say they were not long in tracking down the discoverer, Mr.V.J.A.De Merlo. He was most willing to lead us to see these fascinating tracks, leading us through a mile or so of interesting terrain on the way. Much of this was swamp and old sand dunes, with rises clothed with old trees of Coast Banksia (Banksia integrifolia). Interesting birds were seen, but as it was unwise to stop the cars

on this uncertain track we were not able to definitely identify them.

The cars were left at the mouth of Hamilton's Creek and we had then to walk a mile south along the coast towards Cape Liptrap. This walk was very rewarding for the beachcombing characters in the party as there was the usual variety of old thongs, plastic bottles, broken boards, shells, driftwood, splendid lengths of seaweeds, cork, oil slicks, a few dead birds and fish, coloured stones and small dunes with higher cliffs of aeolinite.

It was on a fallen block of this aeolinite (consolidated dune limestone) that we were shown the six footprints. As the tracks are in three pairs it appears that the bird that left them was a hopping bird. Once we had seen them all of us were eager to hunt over the miles of cliff top for any further tracks. This lead us to find some of the many aboriginal kitchen middens for which this area is noted. Here we found flakes and possible scrapers among the old shells and traces of old campfires. On this western side of the Liptrap peninsula there are not the extensive bands and deposits of hard rocks as are found on the eastern side bordering Waratah Bay, so many of the stones used by these early Australians have had to be brought to the area. Some of them are recognisable as the jaspers and limestones found at Waratah Bay.

ORCHID SURVEY.

From J.Peterson.

Mr. Bruce Muir of the National Herbarium, South Yarra, has asked me if I would supply him with information of the flowering times of orchids in Gippsland.

Could readers help me with such information? By pooling all our knowledge + beleive we could build up a comprehensive list. This list, if published by us, would be of great assistance to us as well as Bruce. It could give details of the range of species in Gippsland as well as show variations of flowering times in different districts due to altitude, climate, etc.

Actual information required is:-

1. Botanic name of flower.

2. Dates of start and finish of flowering in that particular location. (If these are not known then the first and last dates seen in flower.

3. Location of sighting. (Here I suggest its location in respect to the nearest named point on a "Broadbents" map).

4. Special features - if any.

I would be pleased if:-

- (a) Information already to hand could be passed to me by - say - Easter.
- (b) Interested readers could record details of all sightings during 1970.

All above information should be passed to me at
14 Barry St., Morwell, 3840.

EXTRACTS FROM THE L.V.F.N.C. EXECUTIVE MEETING - held
on Tuesday 2nd December at the home of Mr. and Mrs. Homann.

SOUTH CASCADE.

The Club was advised that a member of the National Parks Authority, Mr. Huthinson, was to investigate the area with the view of permanently reserving it.

JANUARY CAMPOUT

Final arrangements were made for the three day campout at Native Dog near Wulgulmerang.
(All Naturalists are welcome as it is expected that members from a number of clubs will attend. All attending this campout are requested to check at Wulgulmerang petrol station on the right hand side of the road before reaching the Mc Killops Bridge turn off; here they will be able to get the final details of the camp location. Editor)

NEXT EXECUTIVE MEETING

Will be held on Tuesday 3rd February at the home of Miss Jean Galbraith at Tyers.

PHOTOFLORA - 1970

Readers are reminded to check their entry form for the closing dates of this competition.

ORCHIDS OF AUSTRALIA

A copy of this book of Nichols can be obtained from the editor at the pre-publication price of \$25.00 - one copy only.

FEBRUARY, 1970

ISSUE No. 74.



Latrobe Valley Naturalist

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REGISTERED AT THE GENERAL POST OFFICE MELBOURNE FOR TRANSMISSION BY POST AS A PERIODICAL

FORTHCOMING EVENTS.

----- MEETINGS -----

WARRAGUL F.N.C. -----Friday 20th February. (Annual Meeting)

Speaker:- Miss Jean Galbraith.

Subject:- "A Pattern of Wildflowers".

LATROBE VALLEY F.N.C. -----Friday 27th February.

Speaker:- Dr.C.M.Barton - S.E.C. Geologist.

Subject:- "Alpine in Antarctica".

SALE & TRARALGON F.N.C.'s - Contact respective Secretary.

-----EXCURSIONS-----

LATROBE VALLEY F.N.C. -----Saturday 28th February.

Working Bee:- Hazelwood Arboretum from 10.00am.

Please bring suitable garden impliments
suitable for weeding.

PHOTOFLORA.

Friday 13th March 1970.

Kernot Hall - Yallourn.

Adults ---50 cents

Children--20 cents

8.00 p.m.

Members are asked to support this screening of the 150 best
wildflower colour slides including all award winning ones by
buying and selling tickets.

Tickets are obtainable from :- Mrs. Padfield at Yallourn,
Mrs. Lubcke at Morwell, Mr. Moretti at Traralgon and from
Mr. Bolgraver at Moe.

THE NATIVE DOG FLAT CAMP-OUT - January 24-26, 1970.
Report by Miss N.T. Rossiter.

The camp-out at Native Dog Flat on the Buchan River was a highly successful one from all points of view. The weather was kind to us - warm but not hot, sunshine and cloud nicely interspersed in the daytime, a few showers at night when we were all snugly in our tents.

Over 40 field naturalists were in camp from four different clubs - Bairnsdale, Warragul, Melbourne and Latrobe Valley and once again we had the opportunity of meeting old friends and making new ones and last but far from least the flowers we had come to see were a delight.

Any one who has tried to lead a party of field naturalists, many of whom are photographers, on a walk through the bush will appreciate the magnitude of the task Mr. Keith Rogers set himself in leading a party of 30 of us up the Cobberas on Sunday Jan. 25th. Those who took part in this expedition will be full of admiration for his skilful leadership in getting such a large group almost to the top, two thirds of the the party the whole distance, and all down again without mishap or the loss of even one member, over an area where there are no tracks but those of brumbies! A 7 mile walk (or was it 10) and a 2000 ft climb was no mean feat and gave everyone a satisfying sense of achievement as well as the reward of gradually expanding mountain views as we climbed, 45 species added to the botanical list and a magnificent panorama at the summit. The beauty of a natural rock garden at the side of "Mt. Ida" was alone worth the climb to see - every crevice in the rock wall filled with the beautiful little mat plant, White Purslane (Montia australasica) (formerly Claytonia australasica) each covered with white five-petalled flowers like little jewels and in the larger crevices clumps of Brachycome nivalis or Snow Daisy with its large brilliant white flowerheads and attractive dark green foliage - one of ten species of Brachycome to grow above 5000ft. "Cobbera" means "head" hence the name "Cobberas" for this many-headed mountain and although we only stood on one of the smaller "heads", time not permitting us to go the full circuit of the summit, we still felt our purpose achieved.

This expedition was the high light of our week-end at Native Dog Flat but the preceding day was even more rewarding in the search for botanical species - the morning occupied by a scramble downstream along the Buchan River into a picturesque rocky gorge and the afternoon in a walk over Rocky Plain where many more species were listed. Here a rosy patch of colour on the far side of the plain lured us on to see at close quarters sheets of trigger plants and nearby the yellow of Podalepis robusta and Helichrysum acuminatum. The tiny bog plants have their own special charm - creamy-white flowers of the dwarf buttercup (Ranunculus millani) and the enchanting red-fruited Exocarpus nana were discov-

ered and viewed with delight as were many others of these miniature plants.

Fern enthusiasts particularly were thrilled to be shown the rare Botrychium lunaria or Moonwort on the way to Rocky Plain. This small fern is common in the Northern Hemisphere but rare in the Australasian region and is only found in several places in the Victorian Alps, the A.C.T. and a few Tasmanian localities.

The total number of species identified (excluding ferns, grasses and all families before Liliaceae in the systematic order of plants was about 200. Of these only the ones not appearing in the Wulgulmerang Botanical list printed in the Lat. Val. Naturalist Nos. 50 and 51 of Feb. and March 1968 are given below, the localities where they were seen being designated as follows - Native Dog Flat and the Buchan River in its vicinity (ND), Rocky Plain, and the road to Rocky Plain (RP) and the Cobberas (C). No orchids appear on the list as there are several species to be confirmed in this family which will be dealt with in a separate article.

PLANTS OF THE WULGULMERANG AREA

Species additional to those given in the 1968 list which appeared in the Lat. Val. Naturalist Nos 50 and 51.

<u>Lilaceae</u>	<i>Lomandra glauca</i>	Pale Mat-rush	C
	<i>Anthropodium milleflorum</i>	Pale Vanilla Lily	All
<u>Amaryllidaceae</u>	<i>Hypoxis glabella</i>	Yellow Star	ND
<u>Proteaceae</u>	<i>Lomatia myricoides</i>	Long-leaf Lomatia	ND
	<i>Grevillea australis</i>	Alpine Grevillea	ND C
	" <i>victoriae</i>	Royal Grevillea	ND
<u>Santalaceae</u>	<i>Choretrum pauciflorum</i>	Dwarf Sour-bush	ND C
<u>Portulacaceae</u>	<i>Montia australasica</i>	White Purslane	RP C
<u>Ranunculaceae</u>	<i>Ranunculus collinus</i>	Strawberry Buttercup	RP
<u>Cruciferae</u>	<i>Rorippa islandica</i>	Forest Butter-cress	ND
<u>Rosaceae</u>	<i>Acaena ovina</i>	Sheeps Burr	All
	(Hybrid between <i>A. ovina</i> and <i>A. anserinifolia</i>)		ND
	<i>Geum urbanum</i>	Avens	ND
<u>Mimosaceae</u>	<i>Acacia obliquanervia</i>	Golden Hickory Wattle	C
<u>Papilionaceae</u>	<i>Pultenea muelleri</i>	Fragrant Bush-pea	RP C
	" <i>fasciculata</i>	Alpine Bush-pea	ND RP
	" <i>subspicata</i>	Spreading Bush-pea	C
	" <i>subumbellata</i>	Wiry Bush-pea	C
	<i>Hovea rosmarinifolia</i>		ND C
<u>Geraniaceae</u>	<i>Geranium antrorsum</i>	Highland Cranesbill	ND
	" <i>sessiliflorum</i>	Mountain Cranesbill	ND
	" <i>solandri</i>	Cut-leaf Cranesbill	All
<u>Rutaceae</u>	<i>Phebalium ozothamnoides</i>	Everlasting Phebalium	ND
	" <i>phylicifolium</i>	Mountain Phebalium	C
<u>Euphorbiaceae</u>	<i>Poranthera microphylla</i>	Small Poranthera	All
	<i>Micrantheum hexandrum</i>	Box Micrantheum	ND
<u>Rhamnaceae</u>	<i>Cryptandra amara</i>	Bitter Cryptandra	ND
<u>Violaceae</u>	<i>Viola sieberiana</i>	Tiny Violet	RP

<u>Thymelaeaceae</u>	<i>Pimelea linifolia</i>	Slender Rice-flower	ND
	" <i>alpina</i>	Alpine Rice-flower	C
<u>Myrtaceae</u>	<i>Eucalyptus rubida</i>	Candlebark	All
	<i>Baeckea gunniana</i>	Mountain Heath-myrtle	All
<u>Onagraceae</u>	<i>Epilobium curtisae</i>	Tiny Willow-herb	ND RP
<u>Haloragidaceae</u>	<i>Haloragis heterophylla</i>	Rough Raspwort	All
	" <i>depressa</i>	Flat Raspwort	RP C
<u>Umbelliferae</u>	<i>Oreomyrrhis ciliata</i>	Fringed Carraway	RP
	" <i>brevipes</i>	Branched Carraway	C
	<i>Daucus glochidiatus</i>	Austral Carrot	ND
	<i>Hydrocotyle javanica</i> (syn. <i>hirta</i>)	Hairy Pennywort	ND
	" <i>sibthorpioides</i>	Shining Pennywort	ND
<u>Epacridaceae</u>	<i>Epacris petrophila</i>	Rock Heath	All
	<i>Leucopogon suaveolens</i>	Mountain Beard-heath	ND
	" <i>attenuatus</i>	Grey Beard-heath	ND
<u>Convolvulaceae</u>	<i>Dichondra repens</i>	Kidneyweed	ND
<u>Labiatae</u>	<i>Prostanthera cuneata</i>	Alpine Mint-bush	C
<u>Scrophulariaceae</u>	<i>Gratiola nana</i>	Small Brooklime	RP
	<i>Euphrasia scabra</i>	Yellow Eye-bright	All
<u>Plantaginaceae</u>	<i>Plantago tasmanica</i>	Tasman Plantain	All
<u>Rubiaceae</u>	<i>Asperula scoparia</i>	Prickly Woodruff	ND RP
	" <i>conferta</i>	Common Woodruff	ND
	<i>Coprosma nivalis</i>	Alpine Coprosma	ND C
	<i>Galium propinquum</i>	Maori Bedstraw	ND
<u>Campanulaceae</u>	<i>Wahlenbergia ceracea</i>	Waxy Bluebell	ND
	" <i>stricta</i>	Tall Bluebell	All
	(syn. <i>consimilis</i>)		
	" <i>quadrifida</i>	Sprawling Bluebell	C
	" <i>communis</i>	Grass-leaf Bluebell	ND
<u>Lobeliaceae</u>	<i>Pratia surrepens</i>	Mud Pratia	ND RP
<u>Compositae</u>	<i>Helipterum anthemoides</i>	Chamomile Sunray	All
	<i>Helichrysum secundiflorum</i>	Downy Cascade	ND
		Everlasting	
	<i>Brachycome diversifolia</i>	Tall Daisy	All
	" <i>scapiformis</i>	Coarse Daisy	All
	" <i>decipiens</i>	Field Daisy	All
	" <i>nivalis</i>	Snow Daisy	C
	<i>Solenogyne bellioides</i>	Small Bottle-daisy	ND
	<i>Cotula alpina</i>	Alpine Cotula	ND
	<i>Gnaphalium involucreatum</i>	Common Cudweed	ND
	" <i>traversii</i>	Mat Cudweed	ND
	<i>Olearia megalophylla</i>	Large-leaf Daisy-bush	RP C
	<i>Podalepis jacinoides</i>	Showy Podalepis	All
	" <i>hieracoides</i>	Long Podalepis	ND

+ Still to be checked.

FORLORN HOPE - 26th Jan. 1970.Described by Mr. Ern Homann.

As the working members of our camp-out packed up on Monday in preparation for return to their daily toil, we, the lucky ones, took our places in Keith Rogers' Land Rover and Alan Morrison's Toyota Land Cruiser. Your Editor and his son John were in the Rover and Mrs. Peterson, Julie and I were in the Cruiser. I was in the fortunate position of having a panic bar to clutch otherwise at some of the ruts we struck I would have taken off through the roof.

Not far west of our camp site we set off up a steep cutting into the bush where we picked up a Forests Commission track and we remained on Forests Commission four-wheel drive tracks for the rest of the day and some 50 miles.

Our way lay through a forest of Snow Gums (Eucalyptus pauciflora) and E. dalrympleana except where a flat broke the pattern. Our track crossed one such flat dressed in yellow for that was the predominant colour due to the Buttercups (Ranunculus Sp), Yellow Stars (Hypoxis glabella) and Bulbine Lilies (Bulbine bulbosa). Our guide did not name this flat but in the conditions under which we saw it, it surely should be Sunshine Flat.

Our next stop was at Native Cat Flat a short distance from our track. The flat lies on both sides of Native Cat Creek and the flora was not as extensive as that on Rocky Flat. Tadpoles were in myriads in every pool. From here on the country became rocky for a time. Keith pointed out where Silver Daisies (Colmisia longiflora) grew to form an extensive carpet under the snow gums. Unfortunately a fire destroyed the gums and daisies but regeneration is rapidly taking place and there were many robust patches of daisy leaves under the young growth of gums. Continuing in rocky country our track began to climb towards a prominent summit on which was sited a trig point. As we approached the summit brumbies were seen and later as we left it we saw another small mob as well as a grey kangaroo. The view from the trig point was magnificent stretching right around all points of the compass. The mass of Mt. Bogong could be clearly seen, as could Mt. Kosciusko and associated peaks of the Snowy Mountains while near at hand were the Cobberas which some had climbed - or nearly climbed the previous day. To the south appeared the Nunniong Plateau where timber getting operations are in progress. To the east on a long steep slope a stupendous "rock river" went down from the summit till disappearing in the distant trees. North-east appeared the symmetrical shape of Mt. Pilot and the ranges running eastward were, I think, the Howe Ranges.

Below the summit among the rocks were robust bushes of the Diggers' Speedwell (Veronica perfoliata) glorious in their vivid blue flowering. They stayed with us until we left the rocky country which we gradually did after leaving the trig point and began to descend. After crossing delightful Clover Leaf Flat we

went down further till we came to the flats along the upper reaches of Reedy Creek, a tributary of the Buchan. This was Forlorn Hope Flat reached after a journey - without counting bounces - of about 25 miles from camp.

After lunch we explored the lovely flat, knee-deep in grass, admired the clear mountain stream, wondered at the mounds of sphagnum moss. The beautiful mountain heath (Richea continentalis) was there, the bushes in a symmetrical mound-like form. So too were great bushes of the Swamp Heath (Epacris paludosa) in full bloom and spreading their carnation-like fragrance on the still air. We were lost in wonder at Nature's dry arrangement of a small mound of sphagnum decorated with spikes of Richea. Fairies' Aprons (Utricularia dichotoma) were everywhere but there was a scarcity of orchids. Pink Parsons' Bands (Eriochilus cucullatus) was fairly common and there were a few plants of the Alpine Leek Orchid (Prasophyllum alpinum) and many plants of a Diuris in seed. This was probably Golden Moths (Diuris pedunculata). We left Forlorn Hope with regret. As we left the flat our track ran through a fine stand of Alpine Ash or Woolly Butt (Eucalyptus delegatensis). After many ups and downs we started going down the steep slope leading to the Buchan River. About half-way down Mrs. Peterson called a halt and there beside the track were fine specimens of Ruddy-hood Greenhoods (Pterostylis rufa formerly P. pusilla) and stout plants of Onion Orchid (Mictotis parviflora). Nearby was a graceful plant of the Pale-fruit Ballart (Exocarpus stricta) with large fruit waxy-like, white to pale lilac coloured with a shiny black seed on the outside. At this point the occupants of the Rover had seen an emu.

Reaching the river the leader began fording the stream in his Land Rover. Parallel to the banks was a long spar washed down by the floods. The Land Rover straddled this log with one front wheel and then was stalled not being able to go forward or backwards. A rope was attached to the Rover - your Editor and John did a useful bit of paddling - and the Toyota pulled it out of the river doing likewise with the log. After that a cup of tea was in order and as we sat beside the track we noticed a crop of young mint-bushes (Prostanthera rotundifolia). Nothing further remained but to cross the river and begin the long climb out of the valley - about 2 miles of rough steep going and it was a tribute to the durability of the vehicles and the skill of the drivers that we reached the top and the fog that had come down.

Soon after the climb, we reached a logging road and, following a ridge we reached the main road. To crown a lovely day, the Rover had a brumby pace it along the main road. And so back to camp with many thanks to Keith for leading us into such beautiful country, for making his vehicle available and to Alan too for the use of his vehicle - and the panic bar.

SPIDERS APRONS AND OTHER WONDERFUL THINGSAs seen by the Peterson family.

Tuesday, the 27th of January, was another perfect day, weatherwise and in every other way. Again the two four-wheel drive vehicles set off with our leader Mr. Keith Rogers, the Morrisons and the Petersons. Today we were to drift down the road calling at interesting spots as Keith travelled home.

Our first stop was within a few miles. A short stroll brought us to a small plain where both the Fairies' Aprons (Utricularia dichotoma) and Trigger Plants (Stylidium sp.) were thicker than we had seen them. A strange green flower was collected here and is thought to be a mal-formed trigger plant. Some short distance further on a search was made near two "Rivers of Rocks" for a Spider Orchid seen some years before, but because of its withered appearance identification was not entirely positive. One specimen was found by Keith, enough to prove it was indeed the Summer Spider (Caladenia pallida).

A stop was called at the highest point of the road. Here, in a natural clearing, lunch was enjoyed among the lush grass and many wildflowers including huge Bluebells and yellow Podolepis. Lunch over, and a short distance away was the sight of a lifetime - many hundreds of square yards of Fairies' Aprons forming a sea of blue with the red of Triggers in the background. No camera could ever capture the atmosphere and the immensity of this wonderful scene. Close by was another area with clusters of white sundews (Drosera peltata). A search brought forth several species of orchids including what is thought to be Prasophyllum gracile the Graceful Leek Orchid. The Summer Greenhood (Pterostylis decurva) was, as ever, plentiful on the slopes. Descending the mountain range, Keith showed us an area with a number of Summer Spiders - some with vivid crimson on their labellums.

At a lower level and a short walk from the road we were to admire a lovely river scene. However the scene was nearly forgotten in the excitement of discovering a host of Summer Spiders. A rough count of 133 was made in a small area, some were double headers - the spiderly white of their flowers contrasting with the deep green of their surrounds. Less conspicuous and intermingled with the Summer Spiders were Thick Lipped Spiders (Caladenia tessellata). Nearby were a species of tiny Leek or Midge Orchid thought to be Prasophyllum beaugleholei and another large whitish Leek which defied identification. Onion Orchids (Microtis parviflora) and Greenhoods (Pterostylis reflexa? and P. decurva) completed the orchid picture.

A few hundred yards further on, on the side of a hill were Bearded Orchids and Hyacinth Orchids (Dipodium punctatum). A quick visit to Wombargo Creek revealed thousands of enormous Sickie Greenhoods (Pterostylis falcata) and more Onion Orchids

(Microtis oblonga and M. parviflora).

Our last stop was at an orchid enthusiast's dream (and what proved also to be a nightmare as identification was attempted). At this spot a number of plants appear to have hybridised having likenesses to at least three and possible four species of Greenhoods. Species involved were Pterostylis decurva and P. alpina, the other two being thought to be P. obtusa and P. reflexa. The discovery of two species of Leak Orchid (Prasophyllum beaugleholei? and P. archeri), the Elbow Orchid (Spiculaea huntiana), Parson's Bands (Eriochilus cucullatus) as well as the Ruddyhood (Pterostylis rufa) completed the day. After saying good-bye to our wonderful leader we returned to our camp through the gathering mists and darkness - and a mob of kangaroos - along 15 miles of road which had taken us all day to explore.

So came to an end what was truly a wonderful camp-out during a period which our host considers to be the best wildflower season he has seen in the area - certainly the best we have seen anywhere. Our one regret is that those who had to depart earlier were not able to share this day.

NATURE NOTES - Extracts from letters and short notes from members throughout Victoria.

CHILTERN From Mrs. Eileen Collins.

Had a Tawny Frogmouth as a patient. Marvellous "bird patient". Ate like a lamb and as gentle too. I viewed his beak with caution at first but soon learned that it is harmless. Had to amputate one of its legs. Kept him one week and let him go. Two days later the children found him by a pool on the roadside (track) and brought him "home". I kept him for two more days and released him. He flew very well, softly and silently into the gloom. He had beautifully marked plumage. He used to slit his eyes to pretend he was a stick and I used to go "oom" in my deepest "frogmouth bass". At this the eyes opened wide and the head turned toward the sound. He had a wingspan of about 2'6" - 3'.

GRAMPIANS AREA From Mr. Reg Stephens.

I should like to relate an experience with the Spur-winged Plover and in this connection you may recall an incident which I reported at Yallourn a few years ago (Issue No.17 of April 1965 - Ed.) in which a group of five plovers furiously drove off another group of four apparent invaders to their self nominated territory.

However, having completely encircled the Mount

Difficult Range along the foothills and in an anticlockwise direction, we had not long joined the Horsham - Hall's Gap road, when up went the cry from a passenger, "Plover chicks"! upon which the car was smartly braked and backed up to where four of the little beauties were in shallow water right alongside the bitumen.

Photographs were taken and when one of our number alighted the parent birds took wing, gave the warning cry which was immediately obeyed by the young ones going to ground (or water) and "freezing" on the spot. This was only the second time in a life-time on which I had witnessed this instinctive reaction on the part of those beautiful little creatures. One lady picked one chick up which I thought was scarcely a fair thing to do, however the victim still played "doggo" and bluffed out this difficult situation.

We learned later that a second car came upon the birds and the procedure was repeated even to handling of the chicks and successful photography.

However when our President came upon the scene even later the little ones were by this time properly fed-up of being pushed around by humans and despite Mum's warning cry they refused to pose for the camera. Perhaps in their enthusiasm to observe, our members had encroached just a little too far into the private lives of a family the like of which we are trying to preserve.

WARBURTON From Mrs. Eulalie Brewster.

Visited Scotchman's Creek at Warburton to see the Butterfly Orchid (Sarcochilus australis) flowering in apple trees. Fine healthy plants with long sprays some with twenty to thirty blooms per spray. A few years ago there were plants in a dying blackwood by the creek. The blackwood is now dead (mistletoe apparently killed it) and now no orchids to be seen on the native trees.

NERRENA via LEONGATHA From Mrs. Melinda Wildes.

There has been a lovely display of native orchids around our house and farm this year (1969). In the house area, approximately four acres of natural bush, I have counted at least twenty cinnamon bells (Gastrodia sesamoides) all of different sizes and stages of development. The largest over thirty inches tall and eighteen bells. The sun orchids (Thelymitra sp.) have been no less exciting. In the house area I have found eight, one beauty had twenty six flowers and was a real joy to see on a hot day. The onion orchids (Microtis unifolia) are almost finished (end of Nov.) I have had a good crop of those also and the bird orchids (Chiloglottis gunnii) on the farm area have been growing almost one on top of the other in the humus beneath the trees. To me they appeared more robust than usual.

In my opinion it has been a good year around here for native orchids. Earlier the greenhoods (*Pterostylis* sps.), two varieties were around, also the bearded (*Calochilus campestris*) but only in their usual numbers.

NERRENA Again. From Mrs. Ellen Lyndon.

In the sheltered garden of the Brewster farm^m at Nerrena the Cranky Fans or Grey Fantails, have a nest in one of the lower branches of the oak tree. While the hen is sitting the little rooster does battle with all comers. He is specially distrustful of the Grey Thrushes and thrashes them unmercifully. The other day, when we were watching, the thrush's better half came racing over to see what the fuss was about. The fantail hen at once left the nest and gave battle with a will and the thrushes were soon routed. The bossy White-eared Honey-eater, however, is not so easily scared and fights back vigorously. In another corner of the garden the Blue Wrens have a nest of eggs. Wrens apparently present no threat to Fantails, perhaps because they live and feed on a lower level. Mrs. Brewster reports the male wren carrying the scarlet flower parts of the New Zealand glory pea and red geranium petals, but is mystified as to the reason for this. They do not seem to use the colour about the nest.

DARLIMURLA From Mrs Ellen Lyndon.

My experience of lyrebirds at Darlimurla has been that they nest in fairly low positions. However, one day I surprised a bird so suddenly that it flew straight up to the top of a silver wattle and gave forth a chorus of all the magpie calls. While trying to see it my eye fell on an old nest fully thirty feet up in the stout three pronged fork of another wattle. It was still in good shape with the opening clearly defined. Perhaps a pair of birds have mimicked the magpies in their nesting habits too!

TRARALGON SOUTH From Mrs. Bon Thompson.

Do Kookaburras have memories or is it just an association of ideas? Two years ago my husband and his brother were clearing some land and during the process much feed for the Kookaburras and other birds was turned up. Every day the birds sat by and had their fill. Ever since, if either of the men go up to that area with their tractors the Kookaburras follow them all day, irrespective of what they are doing. They can be cutting ferns, getting wood or checking fencing, it makes no difference to the birds. I will admit that both men disturb some earth on purpose before they leave.

In our garden we have an apple tree. When some of the apples fall the bigger birds, such as blackbirds and parrots attack the apples. When they leave the little silver-eyes feed on the opened areas. When they can wait no longer the yellow-winged

honeyeaters chase away the silver-eyes and lick up the juice now visible on the apples. The honeyeaters prefer the apples that have been opened up recently, perhaps because they are more juicy.

EXTRACTS FROM THE EXECUTIVE MEETING OF THE L.V.F.N.C.

Held on Tuesday 3rd February at the home of Miss Jean Galbraith.

1970 MEETING AND EXCURSION LIST.

Speakers and Leaders are being finalised by the Secretary and a list will be included by him in the February issue of the Naturalist.

MAGAZINE COVER

As previously agreed the major finance for the block for the new covers of this magazine will be (we hope) received from donations. A number of donations have been received and it is hoped that the major part of the balance will be received at the next meeting.

A.L.V.A. WITHDRAWAL.

As no one is able to represent the club (Mr. J. Peterson has had to withdraw as club representative and member of their committee) and due to the shrinkage of the boundaries of the organisation since we first joined the executive has reluctantly deemed it necessary to withdraw.

CONSERVATION COUNCIL OF VICTORIA

The executive has been favourably impressed with this new organisation and, upon correlating all information concerning the Council will present it to members for their consideration.

PHOTOFLORA

A sub-committee was elected to finalise arrangements for its showing at Kernot Hall, Yallourn on Friday 13th March.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 3rd March at the home of Mr. and Mrs. Peterson, 14 Barry St., Morwell.

A GOOD BOOK

Mrs. P.Rielly wishes to draw the attention of members to the excellent new bird book "Birds in the Australian High Country" by H. Frith - published by A.H. and A.W.Reed. Most of the contributors are known to her and further states that a colossal amount of work has gone into it.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825

Meetings commence at 7.30pm and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302,
Sale. 3850. Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
C.W.A. Rooms., Macarthur St., SALE.

TRARALGON F.N.C.

Honorary Secretary:- Mrs. M. Wood.,
13 Lafayette St.,
Traralgon. 3844. Tel. T'gon 72117

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3844. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication
of the Latrobe Valley Field Naturalists' Club. Contributions on
any aspect or branch of natural history are invited from members
of all clubs and should be addressed to:-

Honorary Editor (J. M. Peterson.)

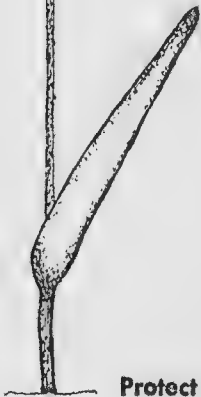
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MORWELL 3840.

Tel. Morwell 42129.

MARCH, 1970

ISSUE No. 75

Latrobe Valley Naturalist



Protect and enjoy

10c.

FORTHCOMING EVENTS

-----MEETINGS-----

WARRAGUL F.N.C. -----Friday 20th March.

Speaker:- Members Night

Subject:- "3 minute talks".

LATROBE VALLEY F.N.C. -----Friday 3rd April.

Speaker:- Members Night

Subject:- Member slides

TRARALGON F.N.C. -----Friday 3rd April

Speaker:- Mr Bill Cane

Subject:- Propagation

Please note:- Meeting commences at 8.00pm.

SALE F.N.C. -----Contact Secretary

-----EXCURSIONS-----

LATROBE VALLEY F.N.C. -----Saturday 4th April

Meeting Place:- Dumbalk P.O. at 10.00am

Excursion to:- Turtong Creek.

Subject:- Ferns, Mosses & Lichens

Leader:- Mrs. E.Lyndon.

TRARALGON F.N.C. -----Saturday 4th April.

Meeting Place:- Park opposite Methodist Church
Traralgon at 1.30pm.

Excursion to:- Tyers Gorge & Rintouls Ck.

PHOTOFLORA

Friday 13th March 1970

Kennet Hall — Yallourn

8.00 pm

WHAT PRICE PROGRESS?From the Editor.

Two hundred years ago on the 20th of April, 1770, Captain James Cook made his first sighting of Australia. The area he sighted was named Point Hicks by him but was later changed to Cape Everard. The date marks two other things - the birth of Australia as a nation and the beginning of perhaps the greatest ecological change in our natural history.

There is no better place to demonstrate these changes than where Cook first landed in Australia - the Kurnell Peninsular of Botany Bay, N.S.W. Records left by Cook and party include such remarks as - woods free of undergrowth - great numbers of birds of beautiful plumage - large quantities of quail - plentiful quantities of waterfowl and others ---. Observations made by Cook's party and accounts from the First Fleet indicate the probable birds of the Peninsular to include several species of parrots and Lorikeets, a number of duck species, the Australian Pelican, the Australian Raven, the Red-tailed Black Cockatoo and the Brown Quail. Mammals were likely to have been the Grey Kangaroo, the Red-necked Pademelon, the Dingo, the Brush Tail Possum, the Eastern Native Cat and the Southern Short Nose Bandicoot. The flora of the area would be seen at its worst during their 3½ day visit at the end of April. Never the less over 100 species of plants were collected. These include several species of Banksia named after Sir Joseph Banks. Correa alba was later named from plants grown in England from seed collected by this expedition from the Kurnell Peninsular.

Changes were to take place. During the late 1860's timber rights of the area were sold. The removal of the timber plus the effects of overgrazing by sheep and cattle caused the light sandy soil to break up and move in the form of sand drifts. Between 1900 and 1920 a number of bushfires swept the area. Added to this were the effects of severe droughts and winds of up to 70mph velocity. It is not surprising then that in 1931 it was recorded that the area between Kurnell and Cronulla was a "desolate waste". Some of the stumps of the original trees may still be seen. These stumps, up to 10ft in circumference, now have their roots up to five feet above the present ground level. The timber of these trees has been identified as that of Eucalyptus botryoides which will grow only in conditions far removed from those which exist there today. A final indignity took place in 1880 when the Kurnell Peninsular was declared an ideal place for obnoxious trades - a decision which apparently still stands today.

Cook's Expedition to Australia was recorded in 1768 as the best ever equipped for the recording of natural history. Sir Joseph Banks is reputed to have entirely financed this side of the expedition, expending £10,000. We tend to think of Sir Joseph as the only person on this journey connected with natural history. This was not so. With him was naturalist Daniel Carl Solander, many

of whose notes are now in the British Museum. Another assistant was Herman Didrich Sporing. Artist for the party was Sydney Parkinson; the British Museum has about 1300 of his drawings - about 1000 being on botanical subjects. Both Parkinson and Sporing died at Batavia on the return journey. Of the nine members of Bank's party only Banks, Solander and two servants survived the three year journey.

Hundreds of insects, shells, 500 fish, 500 birds, mammals and hundreds of new plants were brought back from the expedition. Many more were lost when the Endeavour was damaged and beached north of Cooktown. Results of the expedition were never properly recorded due to the early death of Solander and the interests of Banks being diverted to Iceland. The collections were split up, some being destroyed - the last remaining skull of the kangaroos was destroyed during the London blitz of 1941. Today specimens from the collection are to be found scattered throughout the world including Russia - and some in Australia.

MY FRIEND WILLY

From Mr. Bob Auchterlonie.

His full name is Rhipidura leucophrys, better known as Willy Wagtail. A close association with a pair of these birds leaves me with a wholesome respect for their sagacity, fearless in defence of their nest and general character.

I first met Willy some four years ago, when he and his mate nested in the old apple tree a short distance from our back gate. I passed within a couple of chains of the tree each morning on my way to work, and, suspecting a nest, went over one morning to investigate. There was the nest on a limb about eight feet from the ground. On that occasion I received quite a hostile reception from Willy, but at that time he was not to know that my intentions were peaceful. From then onwards, although Willy always watched me closely, his stern attitude seemed to thaw somewhat, and was later to change to one of complete friendship and trust.

Twelve months later, Willy and his mate decided that the interior of our large shed was a suitable nesting site. The shed is a large galvanised iron building, well lighted by skylights, and is used as an implement shed and workshop. Two large sliding doors on the east side make the building bird-proof, but at this time these were seldom closed.

One morning as I was working at the bench, I heard repeated calls of "Sweet pretty creature" coming from overhead. I looked up, and there was Willy, perched on a nest on one of the cross timbers, and calling at intervals. He appeared to be deliberately trying to attract my attention. I believe the birdknew he was

intruding in my domain and sought to enlist my friendship. My whistled attempts to reply in his language seemed to reassure Willy that he would not be evicted. Every morning thereafter, whenever I entered the shed, Willy would commence calling from the nest, just to remind me, so it seemed, that he was still there; six or eight calls and he would again fall silent. This morning ritual continued during the whole time the birds were in occupation. These birds often form a defence alliance with a pair of mudlarks at nesting time, a sensible arrangement. In the absence of mudlarks, perhaps they thought I would make a suitable substitute.

The site chosen for the nest was just a few feet aside and above where the tractor usually stood, a diesel unit with a noisy exhaust pipe pointing straight upwards. The sudden burst of noise on starting up would, I thought, be sufficient to create panic in any bird just a few feet away, so I commenced rolling the tractor out to the door before starting the engine. The slight fall in the concrete floor enabled me to do this easily, but the same fall prevented me rolling it in again, so I had no option but to drive it in. I soon found there was no need to worry, as Willy sat tight, quite unperturbed by the racket.

In due course the eggs hatched, and that meant an extra busy time collecting food for the young, but Willy had his own special labour-saving method, worked in conjunction with grazing animals. He would take up station within inches of the animals muzzle, and pounce on any luckless insect disturbed by the grazing.

Then, when the young were scarcely half-grown, Fate stepped in and dealt Willy a cruel blow. Entering the shed one morning, I missed the familiar greeting; the birds were not about, the nest too had gone. I soon found it lying on the floor, with the two young birds nearby - both dead. The cause of the tragedy I do not know, but most likely possums scrambling around at night. Whatever the reason, Willy lost little time in mourning. After about one week, he was in business again, with a new nest on another beam a few feet from the old site, and the morning greetings recommenced.

At this stage, I decided some action on my part was called for to prevent a possible repetition of the previous disaster. Nailing the nest to the beam seemed the best course, but how to do it without antagonising the birds, and perhaps losing their confidence? The bird-proof doors provided the answer. I filed the points of three nails to needle sharpness in readiness, and awaited my opportunity when both birds were out of the shed, I then closed the doors, and with the aid of a ladder, completed the job without mishap. The nest was securely cradled between the three nails and could not be dislodged. The sharp nails pierced the base of the nest without damage, but the wood was hard and a fair amount of nail remained conspicuously projecting. What would Willy's reaction be when he saw them? I removed the ladder and opened the door. It had scarcely stopped rolling when Willy

fluttered past me and up to the nest, giving no indication that he had even noticed the nails.

One day a Kookaburra happened along, and perched on a post just near the shed. He was soon spotted by the off-duty Willy. Here was a threat to security not to be tolerated under any circumstances. Willy did not hesitate, but dived straight in to the attack. Jacky at first treated Willy with disdain and continued his scrutiny of the surrounding turf. Willy, however, became more insistent, and Jacky began to show increasing signs of irritation. His tail rose to the vertical, then down, then up again, his hackles likewise, and he began to snap viciously at Willy. Willy was prepared for this, and with well judged finesse, managed to keep just out of reach of the huge snapping beak. Jack's retaliation made Willy still more irate; his language became vitriolic, and he redoubled his efforts. Finally Jacky decided no good purpose could be served by remaining here any longer, so he took off. Immediately Willy darted off in pursuit, pressing home his attacks to the safety limit, and hurling invective at the hapless Jacky as he went. Satisfied that he had seen the enemy to a safe distance, Willy returned, and did I notice an extra air of jauntiness in his gait, an extra note of triumph in his voice? For my part, I felt rather mean for not fulfilling my part of the defence agreement, but the encounter was so fascinating to watch that I could not bring myself to break it off. However, I resolved that in any future emergency, I would come to Willy's assistance, but none eventuated.

On the matter of sanitation, Willy was meticulous. His rule was strictly no fouling of the nest or its surrounds, nor the floor beneath. This rule applied also to the young from the time they were hatched until they left the nest. Of course the parent's assistance was needed in their case. When Willy judged the time was ripe, he would stand by the side of the nest, and nudge one of the young birds. The latter would respond by raising its rump to the rim of the nest, and delivering a surprisingly large packet which seemed to be enclosed in a white membrane. The waiting parent bird would accept this direct in its beak, and fly off to a distance before dropping it. Some other Australian birds have the same idea. There were no lapses.

The two fledglings fully grown and able to fend for themselves, the parent birds decided on a second brood, using the same nest. By this time it was midsummer, and the nest was within a foot of the iron roof. This meant an extremely torrid time for the birds on hot days. So again the doors were closed, the ladder brought up, and a large square of plywood was wedged in a position over the nest, between the rafter and iron, to reduce the heat striking through. Again the birds raised no objection and the second brood was successfully reared.

The above events occurred three years ago, following

which I relinquished control of the shed. My successors kept the doors closed, so Willy had to nest elsewhere. However they were all recalled to mind when I recently had occasion to visit the shed to do a small job. I found the door open, the tractor out. I had not been there long when my attention was attracted by avian flutterings in the rafters, accompanied by Willy's voice raised in stern reproof. I looked up just in time to see a blackbird disappearing out the door, with Willy in hot pursuit. I looked for a new nest, but could see none. The old one was still there, with the three nails projecting, and the plywood shield was still in place. Presently, back came Willy, his beak crammed with cobwebs, with which he proceeded to refurbish the old nest. Using his beak much as a plasterer would use a trowel, he spread the material carefully in thin layers round the rim of the nest. The renovations were not continued however, and another nest started near our front door, was also not completed. The sad fact emerged that Willy had at some stage lost his mate, and was now alone, and was having difficulty in suppressing the nesting instinct. Perhaps he may find a new bride next season, and who knows, I may still have the opportunity to fulfil my resolve in the event of another Kookaburra emergency.

THE FASCINATION OF ORCHIDS

By Jim Peterson.

During the recent combined Clubs camp-out in the Wulgulmerang area a visit was made to Rocky Plains. Here, a strange Sun Orchid was found by Miss Ruth Clark. Not far away I was able to find a similar flower among the Veined Sun Orchids (Thelymitra venosa) and not very far from a Dotted Sun Orchid (Thelymitra ixioides). Later these unusual orchids were found growing in another area a few hundred yards away. This area was later subjected to a close search.

The predominating orchid of the latter area was Thelymitra venosa, but within an area of 10 - 20 square yards there were two flowering plants of Thelymitra ixioides and about 12 Sun Orchids which did not conform to either T. venosa or T. ixioides. This location was on the edge of a swamp and at approximately 4000 ft altitude.

The column structure of the missfits were crested and had a general appearance similar to that of T. ixioides but with an absence of hair on the two straight side lobes. Some of the flowers showed vestiges of hair when examined under a glass. The outside of the perianth had the same characteristic look as that of T. ixioides. However the inside of both sepals and petals were heavily veined as compared with only the petals on T. venosa. One specimen examined by Miss Jean Galbraith had spots on the

inside basal section of at least two of the sepals; the spots being more easily seen if the petals were moved aside. The general appearance being that of heavy veining.

Samples were collected by Mr. Bruce Muir of the Melbourne Herbarium who later advised that the plants conformed to the characteristics of the Rarer Veined Sun Orchid (Thelymitra cyanea). Consultation with Mr David Jones who has been studying this group of sun orchids for some time and who saw the specimens taken to the Herbarium indicated that these plants were similar to T.cyanea found elsewhere in Victoria. As the plants collected at Rocky Plains appeared more like those of a cross between T.ixioides and T.venosa than of a separate species. This then casts grave doubts on T.cyanea as a valid species.

However, thought must be given to observations made by Mr. Jones on specimens found at Lake Mountain. It was found here that some 60-70% of the flowers had their pollinia broken before the flowers had opened and that these plants had self-pollinated. (Pollinia are minute sacks into which orchid pollen is bundled. These generally have a sticky thread called a caudicle attached to them which will adhere to anything brushing against it such as an insect. Upon adhering to the insect it is likely that the pollinia could be carried to another plant where if broken and allowing the pollen to settle onto the stigmatic plate of the second orchid could cause cross pollination.) It was further found at Lake Mountain that this caudicle did not exist on T.venosa. This would mean that T.venosa could not be insect pollinated and must be virtually completely self-pollinated and that in 60-70% of plants self-pollination has taken place before the flower has opened. There still remains the slight possibility of pollen being removed from another suitable species of Sun Orchid and carried to T.venosa.

Applying this theory to the plants of Rocky Plains would mean that the pollinia of T.ixioides would need to have been carried to the flowers of T.venosa which had not self-pollinated; the resulting seed producing the hybrid form. The chances of this happening are very small but so are the number of these hybrid plants by comparison with the large number of T.venosa and the proximity of the hybrids to plants of T.ixioides.

Against this theory is the fact that T.cyanea is fairly common in New Zealand where T.ixioides does not grow. Information again from David Jones, indicates that the T.cyanea of New Zealand differs from that of Victoria in that the mid-lobe of the Victorian species is irregular with a crested look whereas the New Zealand version has a smooth mid-lobe. I understand that the New South Wales version of T.cyanea has a smooth mid-lobe. There is a theory in New South Wales that T.cyanea is a hybrid between T.venosa and T. pauciflora (which has a smooth mid-lobe). This theory would apply to New Zealand where both T.venosa and T.pauciflora grow. One difficulty with this theory is that David's observations of T.venosa

Being largely self pollinating, and so also is T. pauciflora. So further complicate the matter T. pauciflora is a species which is not commonly found open to allow insect pollination although in South Australia we have found this species wide open under sunny conditions. Perhaps the conditions where T. cyanea is found with a smooth mid-lobe is suitable for the opening of T. pauciflora.

Summarising, it could be that the irregular columned T. cyanea is a cross between T. ixioides and T. venosa and the smooth columned version is a cross between T. pauciflora and T. venosa. Whatever the answer may be we can promise a very interesting time for those who seek the solution.

A. B. C. OF BOTANICAL TERMS.

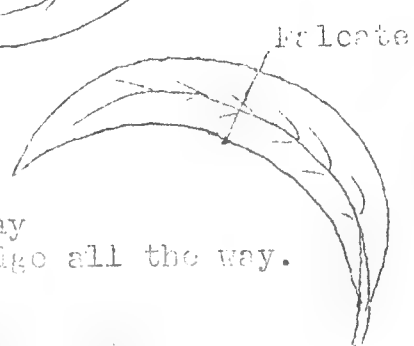
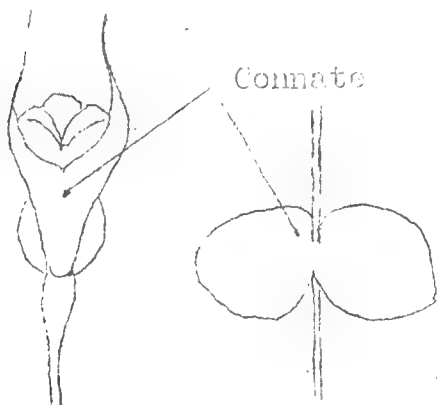
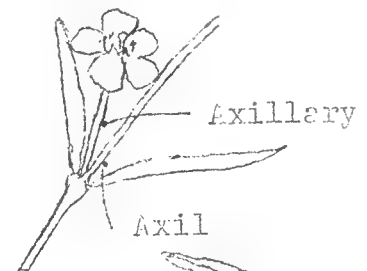
The autheress wishes to remain anonymous

A. is for axil where leaf joins to stem
Flowers are axillary when springing from them.

B. is for bract, beneath flowers or fruit
(Leaflike or scalelike) subtending the shoot.

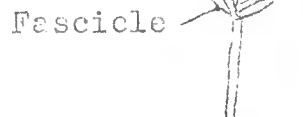
C. can mean connate (two parts joined as one)
Like sepals of greenhoods, leaves of Dargo Gum.

D. is decurrent - a stalk or a blade
Joined close to the stem so a small ridge is made.



E. is entire ("smooth-edged" you could say
Like a gum-leaf, not notched, a smooth edge all the way.

F. is for fascicle (bundle or cluster)
Also for falcate (scythe-shaped would pass muster

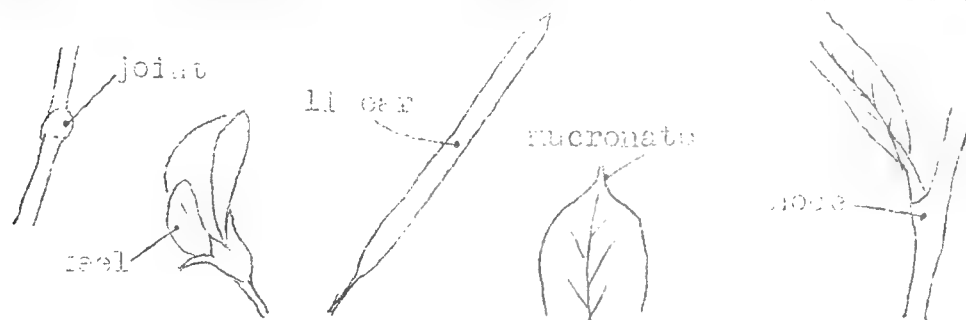


G. is geniculate, bent like a knee
And if a leaf's glabrous no hairs you can see.

H. is for hyaline, delicate, thin
And almost transparent, to "tissue-like" kin.

I. is for imbricate, or you might say
Leaves or bracts overlapping (as good any day).

J. is for joint, as I'm sure you all know
But few words start with J therefore this one must do.



K. is for keeled, and you surely will note
That it means simply ridged - like the keel of a boat.

L. - linear (narrow, like leaves of grass)
With parallel edges - I think that will pass.

M. - mucronate - macro, a point, short, abrupt
It need not be sharp and it cannot be cupped.

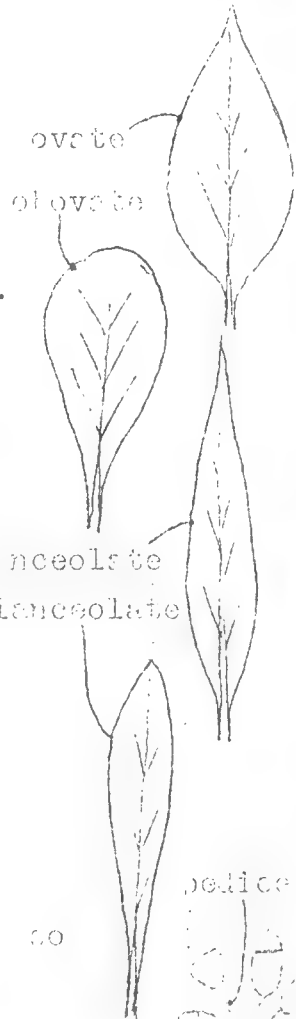
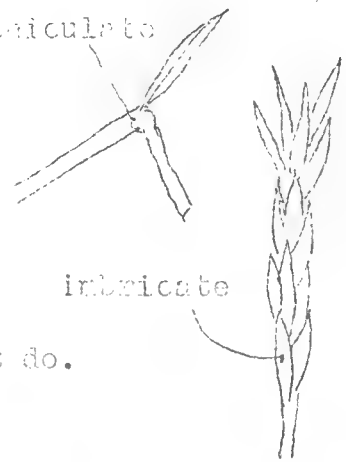
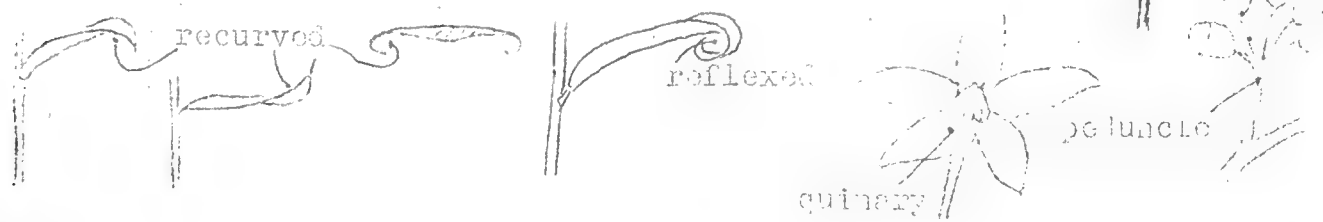
N. is for node and refers to the point
Where leaf joins the stem (it is hardly a joint).

O. is for ob - before ovate or lanceolate - see
It's reverse (the broad end at the apex must be).

P. for pedicel, stalk of one flower alone,
As peduncle the stalk of a cluster is known.

Q. quinary - five, as a five parted leaf
Or five-petalled flower or five-stranded sheaf.

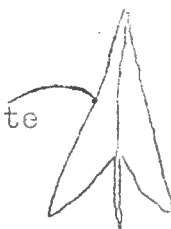
R. - recurved - that's bent backwards or to wards, or so
Is reflexed, but more strongly the bending will go.



S. - saggitate, arrow-shaped; scabrid is rough
and serrate is saw-edged (thats three, rather tough!)

T. for terete, that is rushlike (or nearly)
In cylindrical leaves you can see it quite clearly.

saggitate

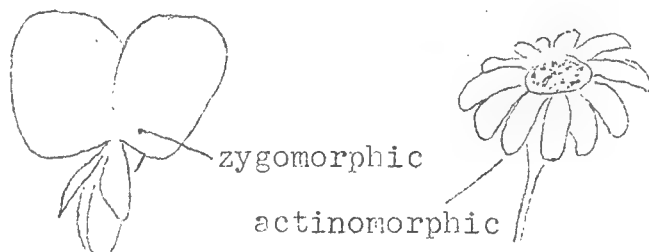
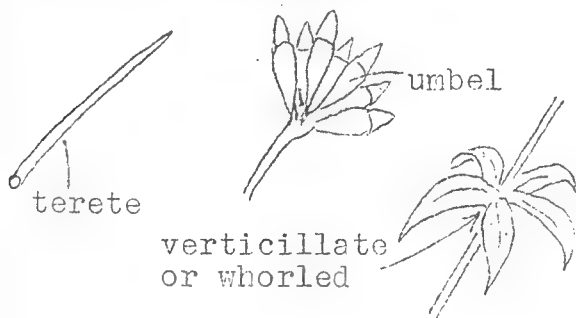
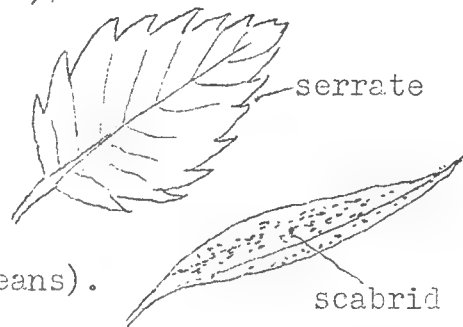


U. - umbel, a cluster where every stalk comes
From the very same point (as in flowers of guns)..

V. - verticillate, in a whorl or a ring
and W. - whorl, means the very same thing.

X. - xyrophytic - resistent to drought.
No Y. that I know - but a Z. will help out.

For that's zygomorphic (of flowers) and means
Not equal (like daisies), but unequal (like beans).



ABOUT MEMBERS

Readers will be delighted to know that our President,
Mr. Ern Homann, was presented with a Certificate of Honorary Member-
ship by the Field Naturalists Club of Victoria on the night of Feb 9.
He has been a member of the F.N.C.V. for 42 years; as well as Presi-
dent of our club, he was a foundation member of the Bairnsdale F.N.C.
In his responce Mr. Homann spoke of the need for conservation,
recalling the early days of the Wonthaggie district. Here he listed
over 90 species of orchids including the rare Thelymitra murchiae,
the specimen found by him being the only one of its kind. Ern and
Mrs. Homann are at this moment enjoying a brief holiday in New
Zealand.

Here tell that Frank Jones has been temporarilly ground-
ed. Hope that foot soon gets better Frank.

Speaking of health, we are sorry to hear that one of our
past Presidents, Mr. Erwin Faisst, is not enjoying the best of
health. Best wishes Erwin for a speedy and lasting recovery.

Treasurer, Mrs. Eadie and husband Bob are enjoying a trip to Japan - half their luck!

Older members will recall Mr. and Mrs. Alis and their family who left this area to live on Christmas Island. It is nice to know that they have returned to civilization - namely Hobart, where Mr. Alis was recently appointed Director of Pharmacy at the Royal Hobart Hospital.

EXTRACTS FROM THE EXECUTIVE MEETING OF THE L.V.F.N.C.

Held at the home of Mr. and Mrs. Peterson.

PHOTOFLORA

Last minute arrangements are being made for the screening at Kernot Hall, Yallourn on Friday 13th March. (Contrary to previous information it will not be necessary for members to move the seats). (Several of Mr. Ollie Thompson's slides have been selected for screening).

MEMBERS NIGHT - Friday, 3rd April.

Members are asked to contact Mr. Tom Moretti at Traralgon 72423 before the night of the meeting so that their slides can be included in the program. Members are requested to participate to ensure the success of the evening.

LATROBE VALLEY NATURALIST

The executive expressed pleasure at the receipt of a cheque for \$5.00 from the Warragul F.N.C. towards the cost of the new block for the front cover. Approximately \$7.00 is still required to cover the cost.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 7th April at the home of Mrs. L. Padfield, 42 Strezlecki Rd, Yallourn.

SUPPER ROSTER

For the meeting of the 3rd April:- Mrs. Johnston.
Miss Galbraith.

There are vacant dates on the roster so if your name is not on the roster and you can help could you please contact the Secretary.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825

Meetings commence at 7.30pm and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302,
Sale. 3850. Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
C.W.A. Rooms., Macarthur St., SALE.

TRARALGON F.N.C.

Honorary Secretary:- Mrs. M. Wood.,
13 Lafayette St.,
Traralgon. 3844. Tel. T'gon 72117

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3844. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication
of the Latrobe Valley Field Naturalists' Club. Contributions on
any aspect or branch of natural history are invited from members
of all clubs and should be addressed to:-

Honorary Editor (J. M. Peterson.)

14 Barry St.,
MORWELL 3840.

Tel. Morwell 42129.

APRIL, 1970

ISSUE No. 76.



Latrobe Valley Naturalist

Protect and enjoy

10c.

REGISTERED AT THE GENERAL POST OFFICE MELBOURNE FOR TRANSMISSION BY POST AS A PERIODICAL

PORTFOLIO EVENTS

-----Series-----

WARRAGUL F.N.C. ----- Friday 17th April.
Speaker:- Mrs. R. White.
Subject:- "Broken Hill Country" (illustrated)

LATROBE VALLEY F.N.C. ----- Friday 24th April
Speaker:- Mr. Alan West.
Subject:- "Aboriginal Relics in Victoria".

SALE F.N.C. ----- Friday 1st May
Speaker:- Dr. Wootton.
Subject:- "Animal Teeth".

TRARALGON F.N.C. ----- Friday 1st May
Speaker:- Mrs J. Court
Subject:- "Aborigines of Victoria". (Commences 3pm)

-----EXCURSIONS-----

WARRAGUL F.N.C.
Contact Secretary.

LATROBE VALLEY F.N.C. ----- Saturday 25th April.
Meeting Place:- Cnr Dumbulk Rd. & 3th Clonsland Hwy
Meeniyan. at 10.15am
Excursion to:- Hamiltons Ck & Venus Bay
Subject:- Aboriginal Middens & Fossil Footprints.
Leader:- Mrs. Brewster.

SALE F.N.C.
Contact Secretary.

TRARALGON F.N.C. ----- Sunday 3rd May.
Excursion to:- Den of Worgan.
Further details from Secretary

A NEW NATIONAL PARK FOR VICTORIA

Compiled from notes
generously supplied by the National Parks Authority of Victoria
by J.M.Peterson.

CAPTAIN JAMES COOK NATIONAL PARK.

Area 6700 acres.

LOCATION

On the East Gippsland coast adjacent to Cape Everard, between Marlo and Mallacoota.

SPECIAL FEATURES

It is in the vicinity of the first sighting of Australia by Captain James Cook. The park is largely a series of high dunes with swamp and swamp heathland, rich in flora and fauna. Claimed to be part of the best, least disturbed coastline in the world.

TIME TO VISIT

Any period of the year though wet weather could affect access road.

ACCESS TO PARK

A fair to reasonable dry weather road of approximately 25 miles, the first four miles sealed. Turn south from the Princes Highway at Cann River township. Not recommended for caravans. Road improvements taking place (March 1970). There is no public transport.

ACCOMMODATION

Primitive camping only at the west end of the Park, near mouth of Thurra River and beach - good water - no fees. Nearest caravan park is at Cann River where also are nearest hotel, motel and stores.

RANGER

Mr. Ken Morrison,
Fisheries Point,
Mallacoota.

Phone Mallacoota 63

ACCESS WITHIN PARK

Undisturbed area without tracks for normal vehicles. No walking tracks but good walking access along beach.

GENERAL

The first sighting of the Australian mainland made by Captain James Cook was of nearby Cape Everard, named Point Hicks by him after Lieutenant Hicks who actually made the sighting. The area has been virtually undisturbed since. It will be proclaimed Victoria's 23rd National Park on the 20th April 1970 exactly 200 years after its original sighting.

The main feature of the park is the series of high white sand dunes which extend a mile or more inland, rising to nearly 500 ft

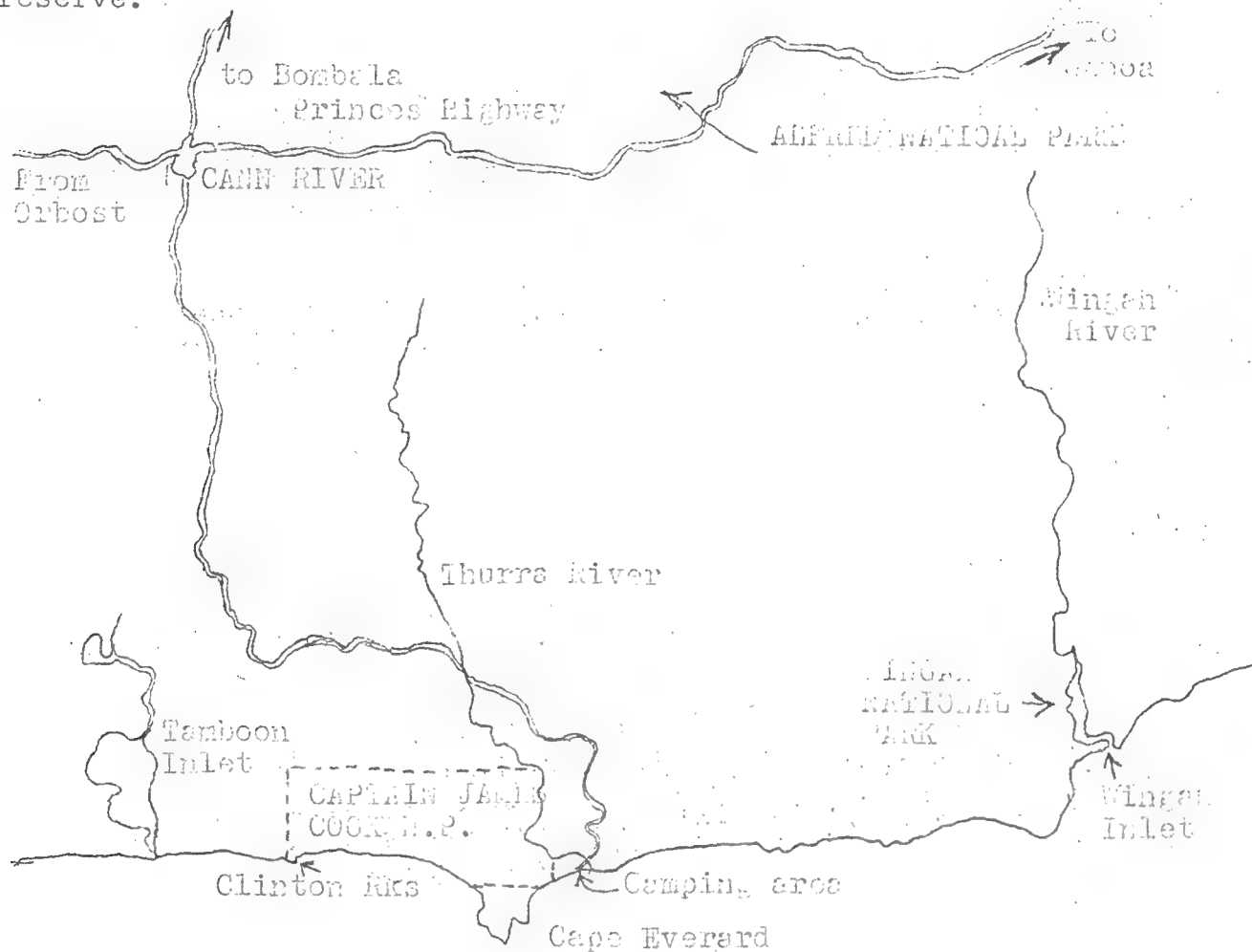
above sea-level near the Thurra River. These dunes are formed by sand being washed along the sea-bed, beached and blown by south westerly winds into dunes. The north-easterly travel of these dunes periodically blocks the Thurra River causing the temporary formation of a large swamp which extends to the northern boundary of the Park.

Vegetation is either dunal with Banksia and ti-tree or swamp. Wildlife is rich and includes rare species. The rare ground parrot is likely to be found in the Park. Lyre birds abound in between the dunes.

Boundaries of the Park are from Clintons Rocks in the west to the Thurra River in the east which are about five miles apart. The northern line runs e-st-west approximately two miles from the southern boundary which is low-water mark. Not included in the Park are the 326 acres of Cape Everard which is owned by the Commonwealth and used for light-house purposes.

FOOTNOTE.

Unfortunately the Park includes little of the high silver-top forests and stringy-bark of the hinterland - nor is it considered large enough on its own to play a significant part as a wild-life reserve.



KOSCIUSKO - 1969By Miss Jean Galbraith.

Those of us who were fortunate enough to see "The Clematis" published annually by our fellow naturalists of the Bairnsdale F.N.C. have enjoyed many good articles in the 1969 issue, amongst them some of special interest to those of us who love mountain flowers. Keith Rogers' article on Mountain Plant Communities and two articles on Kosciusko, these three had special appeal to me because they were written by my three companions on the memorable Kosciusko visit which followed our 1969 Dargo High Plains camp. Feeling that I must not be the only lazy member of the party I thought others might be interested in some notes on the more unusual plants which we saw on Kosciusko.

I kept no record of the plants we saw which were already familiar, unless they appeared in some unfamiliar way - in unusual habit or colour form or abundance, so those in the following lists are mostly species which one would expect to find only on mountains - and even then they do not include common mountain species which one would find, for instance, on all or most Victorian High Plains.

I have arranged them according to locality because they may be more useful to other travellers that way - but travellers must remember that all places mentioned are within the Kosciusko State Park and no plants may be collected or injured there.

As we drove from Corryong towards Kiandra, leaving the small willow stream which is the young Murray, and the open country before the real climb begins. We did not stop until we reached the forest, and then without finding anything unusual until we came to a green hollow with hundreds of giant bluebells, Wahlenbergia stricta (which used to be W. consimilis) and an epacrid which completely puzzled me until I found that what looked like one bush was two with branches interwoven. The fruit (still green) was that of Leucopogon macraei and the flowers were Epacris brevifolia. At our lunch stop by a small stream there was Christmas Bush (Prostanthera lasianthos), not tall and white-flowered with a few yellow dots and a very faint suffusion of lilac, as we know it here, but rather dwarf and bushy with mauve, almost purple, flowers. We found it again at probably the same altitude on the Adaminaby road. A little further on grew Elderberry Panax (Tieghemopanax sambucifolius) not with the large pinnate leaves and leaflets one to three inches long, which we are used to, but with small leaves and little oblong leaflets under $\frac{1}{2}$ an inch long. It is a variable species - but only then did I learn how variable.

From then on our stops were few but always interesting and the following are the plants of especial interest.

Jagumba Range to Tumut PondsHelichrysum adenophorum var. waddellae, Waddell's Everlasting.

Erect and slender, each erect branch with a 1 - 2 inch terminal pink

and white flower - this had been with us on Buffalo but was here in such abundance that I shall never forget it.

Westringia lucida, Shining Westringia.

A westringia characteristic of the Kosciusko area, a spreading bush with oval, shining $\frac{1}{2}$ inch leaves. In spring it bears masses of white to lilac flowers - but in January we found only one flower - but enough to confirm the species.

Bertya oleifolia

Growing near the Westringia this also had one or two flowers characteristic tiny "pine-tree" shape, and leaves velvety above and downy below.

Trachymene pilosa, Wild Parsnip.

This species is found at all altitudes but is only occasionally (and usually in the mountains) abundant enough to be spectacular. It was so here - a cascade of white lace down the steep mountain side, touched lightly with the pink of buds. It is far too lovely with its hemispherical umbels of tiny flowers for its prosaic common name, which however well describes its smell, its leaves and ridged hollow stems, and even to some extent its flattened fruitlets.

Kiandra Creek, east of Kiandra (Shown on some maps as Black Walters Ck)

Sceleranthus biflorus, Twin-flower Knawel and S. diander, Tufted Knawel

Both formed cushions as a background to a host of colourful alpine flowers on these high treeless downs. There was an abundance of a dwarf hairy form of Ranunculus lappaceus, the common buttercup, Brachycome scapigera, Helichrysum acuminatum, Erigeron pappachroma, Gnaphalium japonicum, Leptorhynchus squamatus and many others but the unusual species to me were:-

Geraneum antrorsum

Rosetted geraneum with short-stalked rosy flowers and hairs on the stalks pointing up, which we saw this year about the camp on Buchan River.

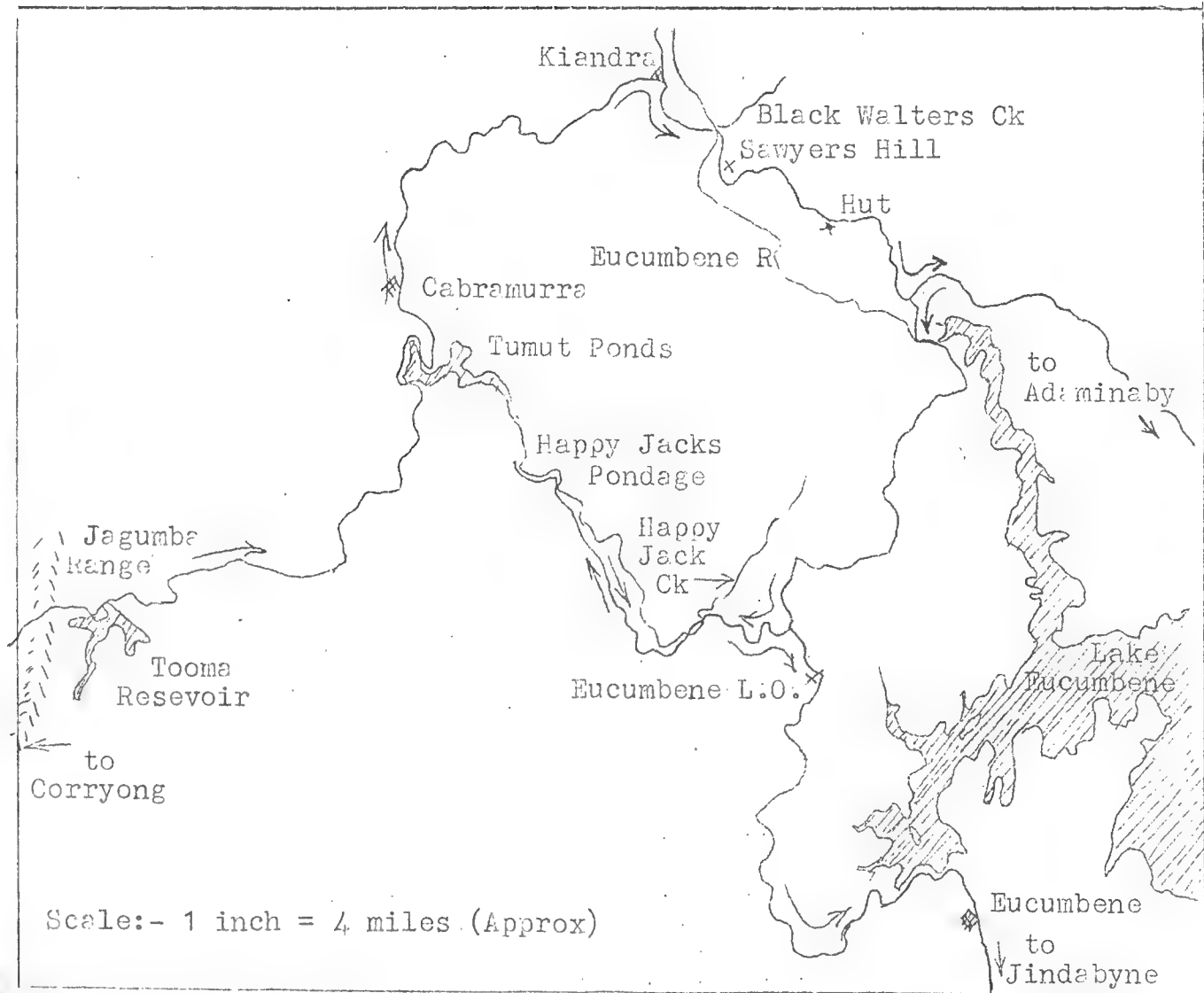
Geum urbanum, Avens

Another species we saw at Buchan River, growing in the stream-edge as it was on Kiandra Creek, its tall branched stems bearing cupped yellow flowers, delicately buttercup-like but not shining, and burr-like fruits, above long-stalked jagged leaves. Oreomyrrhis argentia, Silver Carraway.

A silver-white rosette of fern-like leaves, with rather short stout erect stems (1 - 3 ins in that place) bearing rayed clusters of carraway-like seeds - a delightful alpine I had not seen before.

Wahlenbergia densifolia, Alpine Bluebell.

A distinctive, usually unbranched little bluebell, with blunt crowded spreading little leaves, usually rather blue-green, near the base of the stem which bears a soft blue terminal bell suggesting the campanula sometimes called Fairies Thimbles but with the segments more spreading. A few days before finding this species in crowded thousands on a dry bank above Kiandra Creek we had searched diligently for it on Dargo High Plains and found only one or two specimens.



Wahlenbergia ceracea, Waxy Bluebell

Here (as at Dargo last year) we found this big pale blue rather funnel-shaped bell, with smooth waxy stems and leaves, growing in or against the water.

Sawyers Hill, a mile or two farther on, S.E. of Kiandra.

This was a park-like bluff, 5800ft above sea level so far as I remember, dotted with snowgums and carpeted with Bluebells (Wahlenbergia stricta) and with an interesting burr, considered a hybrid between our two common species, Sheeps Burr (Acaena ovina) and Bidgee-widgee (A. anserinifolia). It was tall, like Sheeps Burr its erect stems strung with spiny fruits and terminating in a globular head like that of Bidgee-widgee. It was hardly a comfortable companion for our camp that night but was not nearly as abundant as the sheets of bluebells which turned much of the grass azure blue. There were many flowers on that hill - especially composites, but they were those one would expect in any mountain grassland.

Rest Hut on Adaminaby Rd.

Driving down toward Adaminaby next morning through forests of Alpine Ash, opening out when not too steep into treeless little alpine meadows, we stopped at a rest hut by one such meadow on the roadside. Again the plants were what one expects in such places but a species I had not seen before was:-

Pultenaea fasciculata, Alpine Bush Pea.

A rather dainty but wiry trailer with orange pea flowers and tiny leaves in scattered bundles or clusters. We saw it again this year during the Buchan River camp. It suggests P. tenella of similar places, but the latter has not clustered leaves and is slenderer. Across the road was a swamp with more waxy bluebell and the magenta flowers of Comesperma retusa (Mountain Milkwort), and wherever there was a sheltered opening amongst the trees there were mauve clouds, often 50 yards long, of innumerable Vanilla Lilies (Arthropodium milleflorum). We had noticed similar clouds on Buffalo, and in both places Waddell's Everlasting was also abundant.

(To be concluded in next issue)

ORCHIDS OF THE WULGULMERANG DISTRICT

By J.M. Peterson

The following list of orchids is made up of species seen during various excursions to the area. Those marked + were seen on the 1970 excursion.

- + Thelymitra ixioidesDotted Sun-orchid
- + " venosaVeined Sun-orchid
- + " cyaneaRare Veined Sun-orchid
- + Calochilus robertsoniiPurplish Beard-orchid
- + Diuris pedunculataGolden Moths
- + Microtis unifoliaCommon Onion-orchid
- + " oblongaSweet Onion-orchid
- + Prasophyllum nigricansMidge-orchid
- + " archeriVariable Midge-orchid
- + " beaugleholeiMidge-orchid
- + " suttoniiMauve Leek-orchid
- + " alpinumAlpine Leek-orchid
- + " odoratumSweet Leek-orchid
- + " frenchiiSlaty Leek-orchid
- + " gracileGraceful Leek-orchid
- + Spiculaea huntianaElbow Orchid
- + Chiloglottis gunniiCommon Bird-orchid
- + Eriochilus cucullatusParson's Bands
- + Caladenia pallidaSummer Spider-orchid
- + " tessellataThick-lip Spider-orchid
- + Pterostylis falcataSickle Greenhood
- + " alpinaAlpine Greenhood

- + *Pterostylis decurva*Summer Greenhood
+ " *reflexa*Small Autumn Greenhood
+ " *obtusa*Blunt-tongue Greenhood
+ " *cycnocephala*Swan Greenhood
+ " *rufa*Ruddy-hood
 (previously known as *P.pusilla*)
+ *Dipodium punctatum*Hyacinth Orchid
Gastrodia sesamoidesCinnomon Bells.
-

WANDERER BUTTERFLIES AGAIN

By Mrs. Ellen Lyndon.

For the past two summers we Leongathians have watched in vain for certain big fat caterpillars on our garden Milkweed or Swanplants (the introduced *Asclepias*) or for a sight of their beautiful Wanderer Butterflies flitting around.

Up the far north coast of New South Wales and into Queensland, where the food plant is widespread, they were the commonest butterfly seen during September. At Beenleigh, near Brisbane, where *Asclepias* fills the ruined gullies, Wanderers thronged round the plants thick as a swarm of bees. They made a lovely sight even if the Milkweed did not. I do not recall seeing any on the inland route home through the Central West of N.S.W. Do they perhaps favour the coast? Back home again in late spring and all through the summer of 1968-70 the big butterflies are once again abundant. Why did they disappear for two whole summers? Was it a result of the drought years?

On one of those rough windy days in mid-February I caught a male Wanderer by hand as it rested in the shelter of the grevilleas in the park. It had not long emerged and was unable to fly properly. Released in the house it lived by the windows and grew stronger. Five days later it occurred to me that the creature might be thirsty. A teaspoon of water was offered and the butterfly uncurled its long tongue and drank greedily. The tongue being as thin as a hair it was a long slow business. The mixture was changed to honey and water fed each day. The butterfly wings grew larger and the body actually filled out. Feeding became an amusing routine, punctuated by remarks such as "Aw! keep yer feet out of it, will ya!" in rich Strine.(me) Actually this butterfly had a bad habit of sticking his left, no, his right foot, in the honey. After a meal he would carefully clean up this foot with his tongue tip and sometimes tidy up breast feathers as well. Take the spoon away after he had started to feed and the tongue would search frantically round just like an elephant's trunk. I grew so fond of this fine intelligent fellow that I put a tag on his wing and released him into the sunshine. Incidentally, a pretty little *Mnesampela* moth on the window was also offered a sup of the syrup and it

accepted with the same pleasure. *Mnesampela* larvae are those wretched green caterpillars that play havoc with my silver eucalypts, living in leafy hides by day and feeding by night.

WATER HYACINTH

Precis. of Pamphlet-No.5 of the Vermin and Noxious Weed Destruction Board.

Readers are asked to keep an eye out for plants of the Water Hyacinth which has recently been found growing - under cultivation at Bairnsdale.

This Water weed, described at the end of this article, is the worst of pests and must be eradicated at its earliest stages of establishment - or it will take over. How dangerous it can be is demonstrated by the following facts taken from the booklet "Water Hyacinth - A Pest of World Waterways!

Reproduction is mostly by vegetative means. The numbers of plants can double every two weeks. One plant in one year can cover 700 square yards and ten plants can produce 65,000 other plants in 8 months. Worse still infestation can split up into huge "rafts" and drift great distances. The size of these "rafts" is such that in the U.S.A. they have been known to push over wooden railway bridges. It was introduced to the U.S.A. as a floral exhibit and was transplanted by enthusiasts in waterways throughout the South. It is now known there as the "million dollar weed" and the "Florida Devil". A native of South America it has now spread all over the world. First recorded in the Sudan in 1957 it was so thick by the end of 1958 it delayed river steamers by as much as one day in eleven.

Water Hyacinth was introduced to Australia in the 1890's and within a few years took control of waterways in Queensland and Northern N.S.W. Despite much work it is still common in these areas. There have been several outbreaks in Victoria but fortunately these have been completely controlled.



The secret of control in Victoria is early warning and notification of any sightings to the Lands Department. Naturalists especially should keep an eye out for this weed in their travels - as its effect on native water life is catastrophic.

The sketch gives an idea of the general shape of the flower which is funnel shaped having six segments of a bluish-purple colour. Flower heads are 6 - 12 ins high, usually consisting of 8 flowers. Leaves can vary - some long and erect usually about 18 inches high though they can be up to 3 ft tall, while others may be round, curved upwards and up to 12 ins in diameter.

A final note of concern - seeds of this plant can remain dormant for years and then germinate under suitable conditions.

L.V.F.N.C.LIBRARY

Members will be pleased to know that our librarian, Miss Betty Kemp, is able to open the library at our next meeting. She has also prepared a list of the books in the library, a copy of which is available to all members.

Members are asked to ensure they obtain a copy of the list and make use of these new facilities. The extent of your patronage will determine the number of new books purchased by the club.

The majority of the books now in the library have been generously donated by members. Should any other member have books of a natural history content and is prepared to donate them to the library, would they please contact Miss Kemp.

ABOUT MEMBERS

Congratulations to the members whose slides were accepted for the recent Photoflora exhibition:- Mr.R.N.Auchterlonie of Narracan, Mrs.N. and Mr.J.M.Brooks of Warragul, Mrs.M.Carr also of Warragul and Mr.O.Thompson of Traralgon South.

Best wishes to Miss D.Johnson, Secretary of the Sale F.N.C. who is now Mrs Newnham.

Just received word that a new species of *Epilobium* has been discovered on the Dargo High Plains - *Epilobium galbraithii*??

EXTRACTS FROM THE EXECUTIVE MEETING OF THE L.V.F.N.C.
Held at the home of Mrs. Padfield.

PHOTOFLORA

Finals figures - some accounts not yet received - indicate that the club will make a small profit although there were fewer at this showing. The executive feels that the entertainment and the publicity that the club receives are ample rewards for the small amount of work required by the club.

LIBRARY

Miss Kemp advised that the library would be open at the next meeting.

CAR STICKERS

Miss Kemp will prepare and forward letters to all clubs who have purchased car stickers, asking progress and for comments on the scheme. A list of purchasing clubs will also be enclosed showing these people the extent of their coverage - the stickers being sold in all states.

NEXT EXCURSION (Details on inside front cover)

Advice was received that some walking will be involved as the track is unsuitable for cars. There will be about a mile walk over the sand dunes to Hamilton Creek and Venus Bay. It is hoped this will not discourage members as this is an out of the ordinary excursion where it is expected to see fossil footprints and aboriginal middens.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 28th of April at the home of Miss Jean Galbraith at Tyers.

SUPPER ROSTER

For the meeting of the 24th April:- Mrs. Clark.
Mrs Peterson.

Members are again advised that there are vacancies on this roster.

ORCHID LIST

Material for the orchid list has been rolling in, however I would like to hear from members in the Warragul, Sale and South Gippsland areas. If any reader in these areas has details of flowering times and approximate locations I would appreciate the information for inclusion in the record. (Editor)

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825

Meetings commence at 7.30pm and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302,
Sale. 3850. Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
C.W.A. Rooms., Macarthur St., SALE.

TRARALGON F.N.C.

Honorary Secretary:- Mrs. M. Wood.,
13 Lafayette St.,
Traralgon. 3844. Tel. T'gon 72117

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3844. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication
of the Latrobe Valley Field Naturalists' Club. Contributions on
any aspect or branch of natural history are invited from members
of all clubs and should be addressed to:-

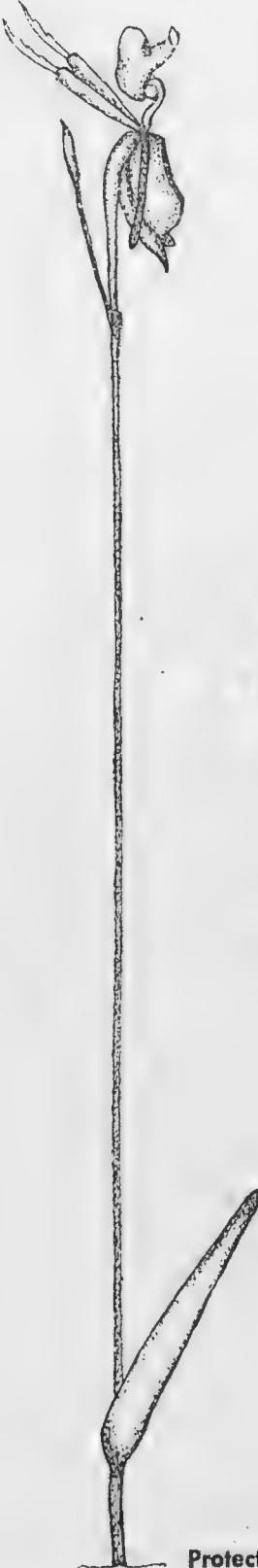
Honorary Editor (J. M. Peterson.)

14 Barry St.,
MORWELL 3840.

Tel. Morwell 42129.

MAY, 1970

ISSUE No.77.



Lalrobe Valley Naturalist

Protect and enjoy

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REGISTERED AT THE GENERAL POST OFFICE MELBOURNE FOR TRANSMISSION BY POST AS A PERIODICAL

FORTHCOMING EVENTS.

----- MEETINGS -----

WARRAGUL F.N.C. -----Friday 15th May.

Speaker:- To be arranged. (Mrs. Gwen Taylor will
be heard at the June meeting).

LATROBE VALLEY F.N.C. -----Friday 22nd May.

Speaker:- Mr Ted Rotherham.

Subject:- "Nature Photography".

SALE F.N.C. -----Friday 5th June.

Speaker:- Mr. Bruce Fuhrer

Subject:- "Animal Kingdom".

TRARALGON F.N.C. -----Friday 5th June

Speaker:- Film Night. (Commencing at 8.00pm)

----- EXCURSIONS -----

WARRAGUL F.N.C.

Contact Secretary.

LATROBE VALLEY F.N.C. -----Saturday 23rd May.

Meeting Place:- Inverax Rd. outside the Traralgon
High School at 9.00am.

Excursion to:- Gormandale area.

Subject:- "Nature Photography".

Leader:- Mr. Ted Rotherham.

SALE F.N.C.

Contact Secretary.

TRARALGON F.N.C. -----Sunday 7th June.

Excursion to:- Gosedale South.

EXCURSION TO TURTON'S CREEK

From the excursion leader, Mrs Ellen Lyndon.

It was unfortunate that the Turton's Creek trip should have fallen on one of those dull and wettish weekends that were so plentiful in early autumn, with the tracks soft and muddy and the leeches on the alert for something with warm blood. However, these conditions ensured that only the hardiest and keenest of naturalists turned up and the leader was very happy to greet the parties in the half dozen cars.

During the extremely heavy rains of March, when some 10 $\frac{1}{2}$ inches of rain fell on the Gippsland Hills, many landslides and Washaways occurred throughout the steep cleared country in the Shires of Woorayl and South Gippsland. Turton's Creek came raging down its narrow valley, piling bridge timbers and willow trees into tumbled heaps and undermining the roadbed that followed its winding banks, its modest cascades becoming veritable Niagaras that stripped the bedrock clean. The roads were mostly open again by April 4th, but the damage done to the steep hillsides carrying grass instead of the natural forest will be visible for many years to come. Higher upstream in the depths of the fern gully where the trees, shrubs and ferns held the soil tightly and controlled the run-off there was little damage except for a few exposed roots and fronds washed sideways.

Sometime in the sixties alluvial gold was discovered in the Silurian bedrock of this tributary of the East Tarwin and the minor rush caused much destruction. The source of the gold was never discovered and the reef is thought to be hidden beneath the Jurassic strata of the surrounding hills. Site of the main mining operations is open and ugly and blanketed with blackberries. The Forest's Commission is currently planting this part with pines, but further upstream above and behind the fern gully proper the mountain ash will be restored to abandoned farm lands. Some 200 acres, mainly a deep frontage to the south side of the creek, will be left in its natural state as a forest park, and a very beautiful one it will be.

In its original state the valley of Turton's Creek would have ranked with Terra Valley and Bulga Park. No doubt every other deep gully in the hills would have done likewise, but all of them are gone today except these small remnants. This one is particularly accessible as it is a "drive in", and its main contents may be admired without leaving the car. It is not hard to picture the gully as it was before the road went through and let the light in.

Huge old blackwoods, their trunks and limbs padded out with mosses and lichens, supported masses of Kangaroo Fern, with Fieldia, Finger-fern and various Splachnoids clinging wherever they could get a foothold. The sheltered gully floor and most of its steep sides were packed with the two common tree-ferns, each fully clothed with filmy or bristleferns, mostly one species to a trunk,

so that the pale transparent curtains of the Veined Bristle-fern, often up to a foot in depth, presented a rare contrast with the stiff dark lace of the Austral Filmy-fern that smothered its neighbor. Tufts of the Weeping Spleenwort and the long runners of Leathery Shield-fern and Fieldia sprouted from amongst the curtains of smaller ferns, so that in all this fern forest each member carried a load of half a dozen different sorts of plants, not counting the many pretty mosses and lichens that fitted in where they could and overflowed to cover any rotting logs on the ground. Each trailing frond of fern or moss was weighted at its tip with a shining drop of water and fungi flourished in this special micro-climate, from huge perennial brackets to the tiniest and most colorful kinds. The bare walking-stick trunks of the Slender Tree-fern rose straight up through the rest, soft and furry at the frond butts from the long chaffy brown scales. Right at the base of each frond there is usually a pair of green pinnae which add considerably to the delicate lacy appearance of the small crowns. Blechnums, or waterferns, provided the actual ground cover, while far above, level with the surrounding hilltops, rose the canopy of the mountain ash.

Later, the narrow road went through, following close beside the winding stream and eating up most of the northern bank. Nature has healed the scars but the removal of the shelter has spoiled the blackwood trees and robbed them of much of their aerial ferneries. The tops have blown out of the larger ash. One can walk or drive alongside the gully today and look right into this nest of ferns, so beautifully landscaped with the pointed tips of the Sassafras contrasting with the colour and texture of Banyalla and Beech, glossy leafed Mulberry and the Holly Lomatia and the dark rosettes of Mountain Pepper leaves and berries. Even the Prickly Currant here has an ethereal appearance and when seen against the sunlight, each slender branch trailing yards of Old Man's Beard, can be a very striking sight indeed. Add to all this that lovely refreshing aroma of damp fern and fireweed that fills ones lungs in a Gippsland fern gully and it will be seen that Turton's Creek is a place to come back to, even though we sometimes think of it as the "poor mans' Tarra Valley".

Principal Flora, usual in our southern gullies, in order of size, as a visitor would see when driving through.

The outstanding tree is the Mountain Ash, Eucalyptus regnans, with dark bark at the butts (often called Blackbutt by local bushmen) clean blue-grey upper trunks and fairly wide leaves. Bunches and strings of loose bark hanging from every fork. Downstream in cleared country are some glorious specimen trees of Manna Gum, Eucalyptus viminalis, with white trunks and umbrageous tops. Also some tall Swamp Gums, Eucalyptus ovata, hill country forms with long clean boles. These are seen on the way in, together with shapely Blackwoods and some Silver Wattle. Acacia melanoxylon and A. dealbata respectively.

Among the ferns, beside the Mountain Ash and the rather battered old Blackwoods with their epiphytes, the pointed tops of the Sassafras, Atherosperma moschatum, contrast with the Holly Lomatia, Lomatia fraseri, and the narrow leaves of Banyalla, Pittosporum bicolor. The commoner Sweet Pittosporum also appears there, P. undulata. The Musk Daisy-bush, Olearia argophylla, and the Blanket Leaf, Bedfordia salicina, are somewhat alike at first sight, but the first has smooth leaves with a silver lining while the leaves of the other are soft and very woolley below. Both have daisy flowers as does the Snow Daisybush, Olearia lirata, also plentiful in this gully. Here and there on the lower side of the road the glossy, toothed leaves of the Austral Mulberry, Hedycarya angustifolia, show up among the tree-ferns, alongside the fine foliage of the Prickly Currant, Coprosma quadrifida, which is sometimes festooned with Old Man's Beard, Usnea barbata, a grey-green lichen.

On the upper side of the road, where, incidentally, there are some interesting little fern gullies, there grows Sandfly Zieria, Zieria smithii, with three-lobed leaves. Prostanthera lasianthos, the Christmas Bush. The Turnipwood, Rapanea howittiana, has rather tough shiny leaves with wavy edges. The Mountain Correa, Correa lanceolata, with pale green bell flowers. The Tree Everlasting or Dogwood, Helichrysum dendroideum, some of which appear to be of great age with enormously thick butts and mossy limbs laden with small ferns.

The Myrtle Beech is not a common tree and appears only sparingly along the creek. Look for it, Nothofagus cunninghamii upstream towards the top end where there are some nice specimens, one close against the road way. The fine foliage is borne in flat sprays, copper coloured when young.

FERNS OF TURTONS CREEK RESERVE

<u>Dicksonia antarctica</u>	Soft Treefern
<u>Cyathia australis</u>	Rough Treefern
<u>Cyathia cunninghamii</u>	Slender Treefern
<u>Microsorium diversifolium</u>	Kangaroo Fern
<u>Grammitis billardieri</u>	Finger Fern
<u>Ctenopteris heterophylla</u>	Gipsy Fern
<u>Blechnum nudum</u>	Fishbone Water-fern
<u>Blechnum aggregatum</u>	Lance Water-fern
<u>Blechnum procerum</u>	Hard Water-fern
<u>Blechnum patersonii</u>	Strap Water-fern
<u>Blechnum fluviatile</u>	Ray Water-fern
<u>Asplenium bulbiferum</u>	Mother Spleenwort
<u>Asplenium flaccidum</u>	Weeping Spleenwort
<u>Histiopteris incisa</u>	Batswing Fern
<u>Pteridium esculentum</u>	Austral Bracken
<u>Polystichum proliferum</u>	Common Shield-fern
<u>Lastreopteris shephardii</u>	Shiny Shield-fern
<u>Rumohra adiantiformis</u>	Leathery Shield-fern

<u>Mecodium flabellatum</u>	Shining Filmy-fern
<u>Mecodium australe</u>	Austral Filmy-fern
<u>Hymenophyllum cupressiforme</u>	Common Filmy-fern
<u>Polyphlebium venosum</u>	Veined Bristle-fern
<u>Hypolepis punctata</u>	Downy Ground-fern

So far the list stands at 23 ferns. Add Fieldia australis to them, for although it is a flowering plant, fern lovers more than anyone else, enjoy its company and its creamy green bell-shaped flowers.

THAT NEW WILLOW-HERB

From Miss Joan Galbraith.

Because it is the first new species collected on any club expedition members may be interested in more information about the new willow-herb mentioned in the April Naturalist.

It is a pink-flowered creeping alpine mat-plant for which the appropriate common name of Carpet Mat-plant has been suggested.

Willow herbs belong to the Evening Primrose family (Onagraceae) and, like Evening Primrose have a long narrow erect capsule under the flower. Epilobium flowers are from 1/8 to 3/4 inch across in different species and may be white, pink or lilac. The fruit looks like a slightly thickened stalk with the 4-petalled flower on its summit. Epilobium means "on a pod" (epi=upon, labos=a pod).

Some species are slender, more or less erect herbs, others bushy herbs and two of our species are alpine mat plants. As well as the native species there is a common introduced species.

The new species is a third alpine mat-plant. Of the other two Alpine Willow-herb, Epilobium tasmanicum has thick crowded almost stalkless leaves, their bases short stalks joined round the stems, and 1/8 in. flowers on fruits hardly longer than the leaves. The flowers, usually in pairs, are crowded near the ends of the leafy stems and (as in all other Australian species but one) each seed has a feathery plume.

Tiny Willow-herb (E. curtisae) is the other mat plant previously known in Australia. It has shortly stalked thin leaves (not joined at the base) and is the only Australian species without plumed seeds. Its pink flowers are up to 1/4 in. across, singly toward the ends of the branches, and the capsule is usually longer than the leaves, slightly 4-angled, and with a row of tiny lumps marking the positions of winged brown seeds.

The new species is superficially like E. curtisae but

differs from it in having longer fruits containing plumed seeds. The fruit is not 4-angled nor with raised dots showing the position of the seeds. It differs from E.tasmanicum in thin leaves and longer fruits, and from both species in having flowers scattered along all the leafy part of the stem, and the older parts of the stems leafless or with a few dead leaves only. Though the bases of the short leaf-stalks are usually joined round the stems this is less pronounced than in E.tasmanicum.

I found a mat of the species growing in a hollow on Lankey's Plain, and took several specimens (which all had roots from the nodes(junction of leaf and stem)). As it differed from E.curtisae enough to make further study desirable I grew one of the pieces, hoping for some fruits. It grew and flowered well. The fruits were longer and smoother than in either of the other carpeting species and all seeds were plumed (though the plumes were easily detached).

Specimens and notes were sent to Mr. Willis at the National Herbarium, and he passed them on to the world authority on Epilobium, Dr. Peter Raven, who wrote back at once to say that the Lankey's Plains specimens were an undescribed species, previously known only from specimens he had collected on Ben Lomond in Tasmania.

As for the queried name for the new species in the April Naturalist - that was a name that Mr. Willis suggested, but Dr. Raven had decided on a different one which is also my choice. When we are able to give the as yet unpublished name of the new species everyone will be pleased with Dr. Raven's decision.

TYERS NATURE DIARY

More notes from Mrs. Joy Johnstone.

9.11.69 Noticed that a Grey Fantail flitting back and forth across the bush track was carrying nest materials, but it soon dropped them. Returning a little later, I stood well back to see the bird, again with materials in its bill, land on the lowest branch of a small Eucalypt sapling overhanging the edge of the road. Here the bird upended itself twisting strands of bark and cobweb to form the tail-piece of a nest. No sign of the cup section yet, so it seems the tail of the nest is done first.

21.11.69 Had my best sighting of an Echidna today. It was paddling through puddles up the roadside drain opposite Tom and Elsie Fullerton's gateway (Walhalla Rd. Tyers). Seen like this, its forefeet were surprisingly large; its head, with the long bill and beady black eyes, looked oddly like that of New Zealand's Kiwi (from pictures). Occasionally it poked its bill into a puddle before walking through. Drinking, or testing the depth? And sever-

all times it tried to climb up the roadside cutting, only two to three feet high, but too steep for it. After about ten minutes it apparently decided that the bank couldn't be climbed, and came on to the road.

All this time it was quite unconscious of me, although after several minutes I had moved to where the wind blew from me to it (to test its sense of smell). Only when I deliberately scuffed my feet on the road did it become aware of me. Then it moved back into the soft soil of the drain and began to dig in. Fearing it would perhaps be run over when crossing the road after I left, I poked a stick under it to hinder its digging, then picked it up and placed it on top of the bank it had tried to climb. The ground there was hard and dry, and, instead of trying to bury itself, it simply "froze". While holding it I noticed its pouch was rather puffy, so reckon there was a young one inside.

When I returned from Rintoull's Road a few hours later, "Prickles" had, of course, gone.

5.12.69 Despite the presence of Silver Gulls at Lake Eucumbene, some spots along the Buckenderra Arm had been quite offensive with fish cleanings. So, cleaning trout at Waste Point, Lake Jindabyne, I wondered how it was that no unpleasant material was lying about there; not even gulls, as scavengers, having been seen. The answer came (literally) just as it grew dark. We at first thought it was a fish rising about twenty five feet away and no more than six feet out from the bank. But it was a Water Rat, which swam right into a little inlet close to me, and seized the head and skin of an eel thrown in by son Philip. Thence it towed back about six feet, then climbed onto a small log where it sat, munching and crunching the eel head. Philip had switched on the car lights when he first realized what it was, and by these we could see the animal's golden belly colouring, but little detail of its darker parts against the dark background.

KOSEIUSKO - 1969 (Continued from Issue No.76)

By Miss Joan Galbraith.

Happy Jack's Creek

After driving down through pastoral country to Adaminaby for petrol we returned to the forest and turned west along the old Jindabyne road which crosses the dry northern tip of the Eucumbene Dam and the Eucumbene River. (See map in Issue No.76) Farther on it crosses Happy Jack's Creek. Here we stopped and the most interesting plants found were:-
Drosera peltata; the Pale Sundew.

Normally differs from our Tall Sundew or Erinellum only in having a rosette at the base and a hairy calyx, but in this case plants were flowering (and relatively large-flowered) at 1 inch

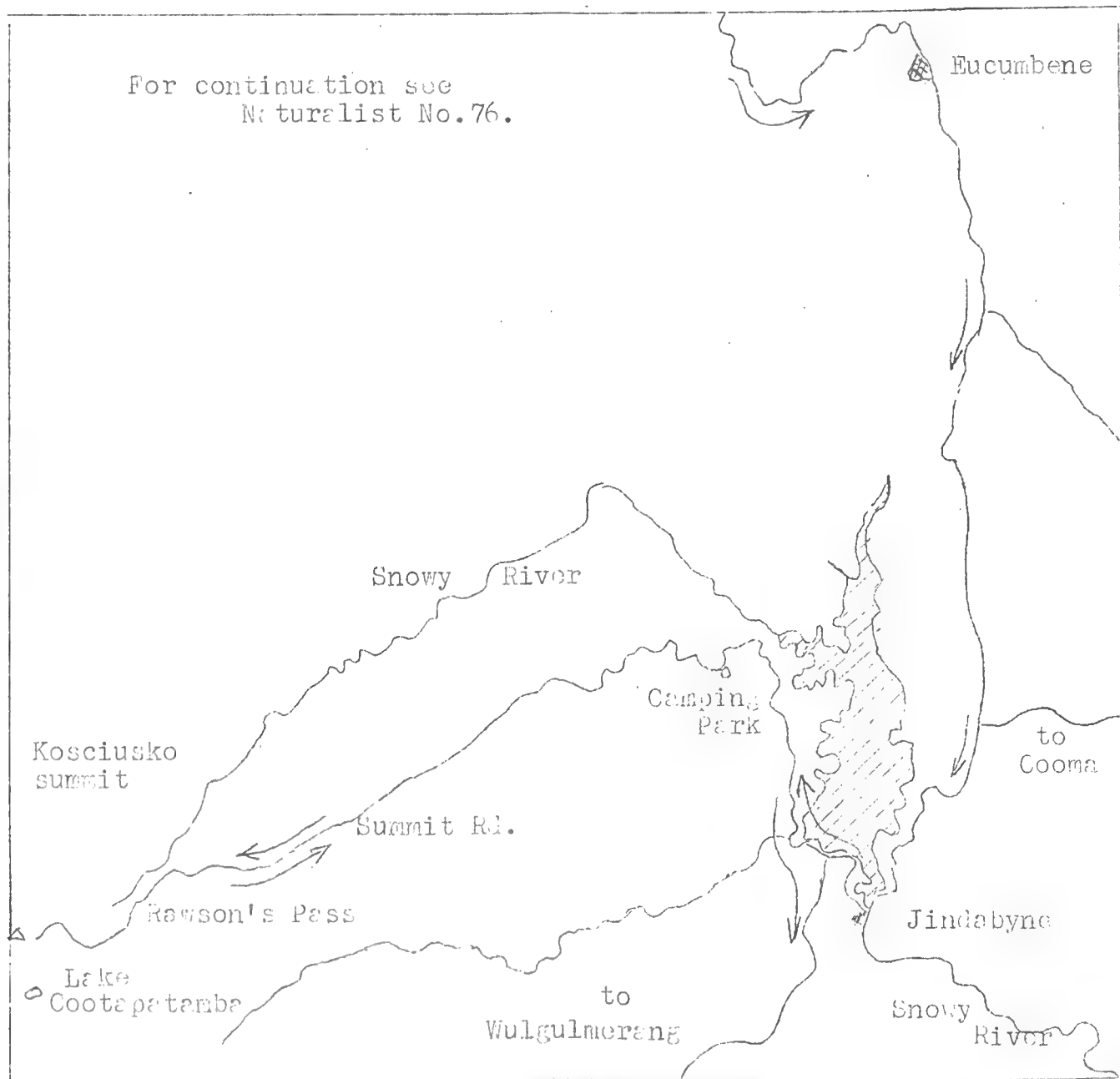
high or less.

Stellaria palustris Swamp Starwort.

A delicate little plant with scattered small thin lance-shaped leaves and $\frac{1}{4}$ - $\frac{3}{8}$ in white flowers of apparently ten petals because each of the five petals is divided almost to the base; resembling Forest Starwort but with pale green pointed sepals as long as or longer than the petals, instead of shorter.

Mirbelia oxyloboides Mountain Mirbelia.

Normally a wiry shrub with smooth small dark pointed leaves in threes and clusters of red and brown or orange pea flowers. Specimens in this place were much dwarfed and the leaves tiny and dull (though rather larger than at Wulgulmerang).



Utricularia dichotoma Fairies Aprons.

An alpine form of the plant we saw in delicate purple profusion near Buchan River. At Happy Jack the flowers were large but almost stalkless, scattered over wet sand between the Pale Sundews. A similar form grows on Bogong High Plains.

Cassinia uncata

Characteristic of the rather dry mountains this Cassinia is often dwarf with foliage suggesting C. aculeata but rough (sandpaper-like) to touch, and with cream to yellow flowers. Helipterum albicans var. incanum. Hoary Sunray.

Dwarf and grey woolly like H. albicans var. alpina but with narrower leaves and less leafy stems.

Various subspecies, varieties and forms of the Hoary Sunray have been defined and according to an article by Paul Wilson in the Proceedings of the Royal Soc. of S.A. this 4 - 8 in plant of the mountains, which in this form is beautifully shaded with crimson, if given its full name is H. albicans, sub sp. albicans, var. incanum, forma purpureo-album. We found the same form on Bennison High Plains a few years ago on our first club excursion there.

Happy Jack's Pondage lies amongst typical rocky mountain forest and the most notable species seen there was:-

Eucalyptus perriniana Dargo Gum.

Usually rather bluish and with many or most leaves rounded with bases joined round the stem, from which they later break free and spin round in the wind, hence its other name Spinning top Gum. On some trees the older leaves are rather dull and heavy looking, stalked and lance-shaped. There are some specimens of this species in our Hazelwood Arboretum.

From the Pondage to the Eucumbene Lookout and down to Jindabyne the views were often more interesting than the vegetation. Notable plants were:-

Eucalyptus rubida Candlebark.

With the reddest bark any of us had ever seen, so that we were continually pointing out spectacular trees to each other. Pimelea pauciflora Scanty Riceflower.

A tall shrub, rather undistinguished looking apart from its orange to scarlet, oval, berry-like fruits. It is common in the high country but I had not seen it before.

Our second night was spent at Kosciusko Camping Park and we left early next morning for:-

Kosciusko and Lake Cootapatamba

Many familiar alpine plants grow along the roadside below Rawsons Pass, but the only unfamiliar ones noticed were some bushes of

Phebalium ovatifolium Ovate Phebalium

Not then in flower - it is a white flowered species - but with characteristic small (usually under 1/2 in) ovate leaves, firm, shining above but white scaly below.

At Rawson's Pass (where the letter-box stands in winter, well below the summit but above the glacial Lake Cootapatamba which is farther down the valley to the left) we left the car as there was still a large snowdrift across the road. This was where I began to find the unknown plants I had been hoping for. They were not hard to identify as they were very distinctive, but I had not seen them before.

Just above Rawson's Pass and below the last steep ridge a swift icecold stream tumbled over rocks, muffled by Baccharis gunniana and other alpine shrubs. It is the beginning of the Snowy River. We scattered in that wonderland. I went up the stream to a robust bright green herb. It was a species that one can see nowhere else.

Ranunculus anemoneus Anemone Buttercup.

This robust specimen with large smooth round deeply-cut leaves had flowered and had strong branched stems of green burr-like fruits. Below the road where the stream was more open, near the big snowdrift, young plants of the buttercup were springing up, rosy stalked, white flowered; with leaves just uncurling.

This was the most spectacular of Kosciusko's flowers, but on the roadside and along the stream were the other "new" species. Dichosciadium ranunculaceum Wreath Pennywort.

Rosette plant, the 3 to 6 in rosette of round geraneum-like long-stalked leaves $\frac{1}{4}$ to 1 in across, the centre of the rosette wreathed by a circle of tiny white flowers. Although belonging to the family Umbelliferaceae the flowers were not obviously in umbels as only 2 or 3 flowers form each umbel and they are on stalklets of uneven lengths.

Diplaspis hydrocotylea Snow Pennywort.

Loose mats of thick little roundish leaves, smooth shining dark green. These were not flowering but the flowers are small and white. This year, returning over the Bogong High Plains from Buchan River we saw the Snow Pennywort bearing fruit - short erect stalks with round many-rayed clusters of carraway-like seeds - very like the carraway-seed fruits of Oreomyrrhis.

Scizellema fragosum Alpine Pennywort.

Very like a Hydrocotyle with round long-stalked leaves, but with short-stalked yellowish flowers.

Oreomyrrhis pulvinifica Cushion Carraway.

Loosely matlike, with finely divided asparagus-like leaves on trailing stems; terminal clusters of very tiny white flowers and characteristic round clusters of "carraway-seed" fruits.

O. brevipes Branched Carraway.

Differing from the common ferny leafed O. eriopoda with its tall unbranched flower-stems, mainly in having those stems branched, often with a tuft of leaves at the branching, instead of having all leaves in the basal rosette.

O. ciliata Fringed Carraway.

With the habit of O. eriopoda, but the leaves greener (those of O. eriopoda are usually a dusty green) the segments finer and minutely toothed or fringed.

(to be concluded in next issue)

EXTRACTS FROM THE L.V.F.N.C. EXECUTIVE MEETING

Held at the home of Miss J. Galbrath on 5/5/70

BIRDS GULLY RESERVE

Work has commenced on the widening of the road past this reserve. The Shire of Morwell are taking special care and have reduced tree felling to the barest minimum as was promised.

CAPTAIN COOK NATIONAL PARK

The executive are concerned at the size of this park, less than 7000 acres of the 40 - 50,000 acres recommended. They will make enquiries to see how the club is best able to assist in increasing the areas reserved in this part of Victoria.

COST OF MAGAZINE.

This matter will be discussed at the next meeting when members will be asked to decide on the future price. Various ways of decreasing cost to members was discussed such as increasing distribution - even to printing the magazine every second month.

LIBRARY.

It was reported that the library was well patronised at the last meeting. More pleasing was the generous donations of books which have been added to its shelves. Details of these will be printed in the next Naturalist.

CAR STICKERS

Cost of production have increased and it was decided that this should be passed on to those clubs purchasing them. However a new process ensures a better quality sticker which is more durable and easier to apply.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 26th of May at the home of Miss N. Rossiter, 72 Railway Ave., Yallourn.

ABOUT MEMBERS.

It is good to be able to report that three of our members who have been on the "not so well" list are well on the way to recovery. They are Mrs. Bob Thompson, Mrs. Leslie Clark and Mr. Frank Jones.

We all wish a very "bon voyage" to Mr. and Mrs Brewster who will shortly spend a month in New Zealand.

SUPPER LIST

For the meeting of 23rd May :- Mrs. Williams.
Mr. Moretti.

Latrebe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825

Meetings commence at 7.30pm and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302,
Sale. 3850. Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
C.W.A. Rooms., Macarthur St., SALE.

TRARALGON F.N.C.

Honorary Secretary:- Mrs. M. Wood.,
13 Lafayette St.,
Traralgon. 3844. Tel. T'gon 72117

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3844. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication
of the Latrobe Valley Field Naturalists' Club. Contributions on
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Honorary Editor (J. M. Peterson.)

14 Barry St.,
MORWELL 3840.

Tel. Morwell 42129.

JUNE, 1970

ISSUE No.78.

Latrobe Valley Naturalist



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FORTHCOMING EVENTS.

----- MEETINGS -----

WARRAGUL F.N.C. ----- Friday 19th June.
Speaker:- Mrs. Gwen Taylor, Pres. National Parks Ass'n.
Subject:- "National Parks"

LATROBE VALLEY F.N.C. ----- Friday 26th June.
Speaker:- Representative of Mines Dept.
Subject:- "Geology"

SALE F.N.C. ----- Friday 26th June (Note change)
Speaker:- Members slide and Film Night

TRARALGON F.N.C. ----- Friday 3rd July
Speaker:- Mr. C. Abbot.
Subject:- "Conservation"

----- EXCURSIONS -----

WARRAGUL F.N.C. ----- Contact Secretary

LATROBE VALLEY F.N.C. ----- Saturday 27th June
(Details to be arranged)

SALE F.N.C. ----- Contact Secretary

TRARALGON F.N.C. ----- Saturday 4th July
Excursion to:- Mount Sturt
Further Details:- Contact Secretary.

REPORT OF TALK GIVEN BY MR. ALAN WEST, CURATOR OF
ANTHROPOLOGY AT THE NATIONAL MUSEUM MELBOURNE, ON 24TH APRIL 1970.
By Miss Betty Kemp.

Mr. West commenced his talk by producing some very interesting enlarged photographs of some of his subjects. These included portraits of three of the surviving seven full blood Victorian born aborigines - a woman with curly white hair, a noble face and large beautiful eyes, and two men (one, the grandfather of Lionel Rose, the aboriginal boxer, and the other Mr. Foster Moffatt of Lake Tyers). Until recently it had been believed that there were no Victorian full blood aborigines, and Mr. West hoped to obtain portraits of the other four.

There is a dearth of information about the Victorian aborigines as few people bothered to study them in the early days, the general concern being to get rid of them. However, there are still signs of their habitation to be found, and Mr. West showed some excellent slides illustrating a number of these throughout Victoria.

Canoe Trees. A survey had been made of canoe trees in Victoria and a very good example still existed in a private park at Eaglemont, a suburb of Melbourne. Mr. West showed several slides of this and of the making of a bark canoe at Lake Tyers by Foster Moffatt and Albert Hayes, a part aborigine. It was interesting to watch their method of cutting and removing the oblong length of bark from a bent stringy-bark tree, stripping off the surface bark and firing the sheet beneath to enable it to be bent into shape and the ends bound together with bark and mud. The canoes were usually made in winter when the bark was not dried out and easier to work. The method used was different from that in other parts of Victoria. They become more primitive as you go south and we saw examples of less primitive canoes built in the Murray River area.

Axe Grinding Rocks. Slides were also shown of axe grinding rocks, small lichen covered outcrops of rock with smooth worn holes and grooves in them. These are always to be found near swamps as water is needed in the grinding. There are not many left in Victoria as the farms have taken over, but one farmer had been particularly co-operative in locating and preserving those on his property. Good examples were shown on the sandstone area around around the Munro and Stratford district.

Stone Arrangement Sites. These were quite common throughout aboriginal Australia but there are only two left in Victoria now. A slide was shown of the most spectacular one, on the bank of Deep Creek at Carisbrooke - stones laid down in circles and other shapes, one in the form of a 100' boomerang. Totemic animals and heroes appear in other parts of Australia, but the purpose of these arrangements is not known.

SUPPLEMENTARY INFO & VISIT INFORMATION - JUNE, 1970

General Meeting - 26th June, 1970: Mrs Jean Galbreath on the subject of Wild Flowers. The excursion to the Stampet Road area will be arranged at the meeting.

Rock Wells. A slide was shown of aboriginal rock wells in the Maryborough area. It showed an outcrop of rock running north and south which made a natural run-off for rain water. Small fissures had been enlarged to hold the water and these would be covered by stones to protect them from animals.

Rock Shelters. Slides illustrated several of these, formed by over-hanging rock faces where the aborigines would shelter and often produce rock paintings. We saw examples from the Grampians and another area, and from Mt. Porcupine in N.E. Victoria. Painted hands often appear among the paintings and those at Mt. Porcupine are the only known ones larger than life, being in fact twice life size.

Shield Trees. Examples of spear shields, beautifully incised, were also shown, as well as a shield tree used for the purpose at Yandoit Swamp. (There is also one in the Fitzroy Gardens, Melbourne.)

Middens. Aboriginal shell middens were seen at Phillip Island, mainly picked over by amateur collectors, and at Mathoura in the Murray Valley one could see quite clearly the layer of sooty sand on top with the clean river sand underneath.

Burial Grounds. Many of these have been spoiled by amateur diggers, but work is being done professionally at Kow Swamp in the Murray Valley where there is a very important human fossil burial area. Slides illustrate the work here and the damage done in other areas.

Diorite Fragments for Axes. A slide taken at Mt. William showed an outcrop of diorite from which sharp fragments could be obtained for axe heads.

Rock Carvings. Strangely enough, Victoria is the only part of Australia where rock carvings have not been found.

Mr. West said that archeological sites are the main concern in Victoria now, and he would like to see legislation brought down to prevent untrained people going over such sites and destroying valuable data.

At the end of animated discussion, Mrs. Lyndon thanked Mr. West on behalf of all present for his very interesting talk and slides which gave such an excellent background for the following day's excursion to the Venus Bay area in search of middens and fossil prints.

Footnote from Miss Betty Kemp.

For those who may be interested in a perhaps more spiritual aspect of our aborigines, I would recommend a trip to the

William Ricketts Sanctuary (administered by the Forests Commission) in the Dandenongs near Olinda. On the steep mountain side Bill Ricketts, sculptor, has filled this bushland area with many beautiful sculptures of aborigines, with whom he has lived and for whom he has a great love and understanding. He sees them inextricably linked with nature and his work outpictures this with beauty and clarity.

One sees what seems to be two phases of his work. There are finely detailed and delicately executed sculptures in a bone white colour that probably belonged to the earlier days before the Government took him over; and there are stronger, more virile but still beautiful productions in a red ochre colour that appear to be striving to get a message across of the aborigines' involvement with nature and our involvement with them as brothers. It takes a mountain side to match the dignity of his subjects and his work.

MAMMAL REMAINS

From Mrs. Ellen Lyndon.

During our visit to Venus Bay foreshore on Anzac Day the carcase of a ratlike animal was seen among the debris on the sand and dismissed as just another dead rat. Later investigation showed it to be a much more interesting creature, one of our native Marsupial Mice or Phascogales, belonging to the family Dasyuridae, which includes various others of its kind, as well as the Native Cats, Tasmanian Devil and "Tiger" (Thylacine). The dark brown fur, short ears and conspicuously short tail suggest that this specimen may be Antechinus swainsonii, the Dusky Marsupial Mouse; but I shall have to wait until the skeleton is clean before checking on that.

Searching through Troughton's and Brazenor's books for clues about this I remembered that Wakefield and Warneke had revised Antechinus in the Victorian Naturalist (November 1963 and March 1967) and given very detailed data on many of the species. Writing in the "Age" in January 1966, Mr Wakefield remarks that he prefers the name Phascogale for these lively little marsupials as the term "Mouse" is misleading. Actually they are not in the least like the foreign rats or mice for the very long narrow pointed snout at once marks them as different. They belong to a carnivorous family and although subsisting mainly on insects, do not object to an occasional meal of flesh. They are said to relish the introduced mouse. It is a pity we haven't more of them in the Wimmera. As the breeding season approaches the females develop a rudimentary pouch to protect the young and there may be up to eight in a litter. Among the dunes and rocks of Venus Bay they would make their nests in crevices of the sandstone or in burrows under the butts of the beach shrubbery.

It is always worth while investigating small animal remains or bones, on the road or in the bush. One never knows what will turn up, or where, and this adds to the value and interest of our outings.

ABORIGINAL RELICS AT VENUS BAY.

By Jim Peterson.

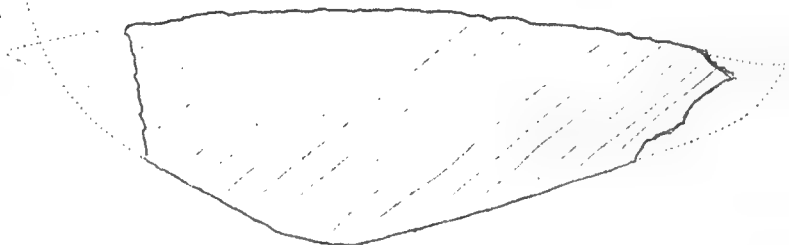
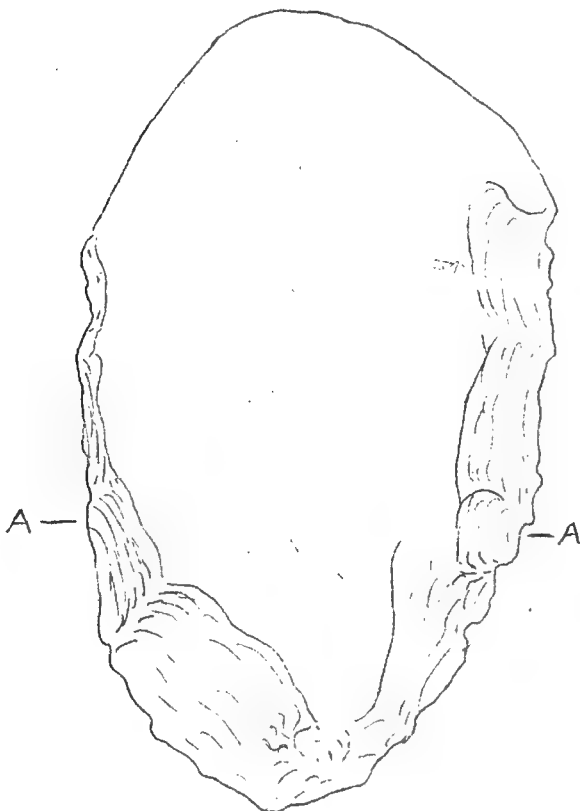
The Anzac Day excursion led by Mr. and Mrs. Brewster was a very interesting excursion. Interest was such that some members returned to the scene the following weekend.

The fossil footprints alone were worthy of a second visit. These prints were left by some bird, as yet unidentified, during the period 30,000 to 150,000 years ago. A good illustrated article dealing with these prints appears in the "Victorian Naturalist", Vol.86, Page 134 of May 1969.

With more time at our disposal a more thorough search was made of the aboriginal midden area to the south-east of the fossil prints. Many thousands of shells can be seen in the area. Among the shells there can be found pieces of stone quite foreign to the sand dunes such as small pieces of flint which were used or from which pieces were broken to extract fish from their shells and other purposes. These pieces are called "artifacts".

The Petersons were lucky enough to find several large pieces of rock which showed definite signs of being worked by man. The drawing is an attempt to depict one of these pieces.

CROSS SECTION A - A Looking down



The piece of rock was originally much larger, this piece being split off a larger water worn stone. The material is hard, fine grained like basalt. The piece had been split from a larger piece - the back (rear of drawing) being relatively smooth but quite definitely broken from another. The front surface was curved and very smooth (water worn) except for the edges. The right and bottom edge had resulted from a small breakages, fairly even in size and angle which was acute. The left edge was also chipped but in this case the angle was about 90 degrees. All of the chipping of the edges appeared to have been made from the front and in all there would be about ten separate breakages. There were several small pieces broken from the rear but these could easily have been accidental. Apparently something went wrong - perhaps the breakages were not as desired - and the stone was discarded.

A second similar type of stone was found this time slightly larger and thicker than the other. This stone was water worn on both sides. The edges of both sides and the bottom had been chipped from this stone - the angle of chipping was fairly even and relatively acute. There appeared to have been at least a dozen pieces chipped off.

Reading from Cotton's "Aboriginal Men in South and Central Australia" it would appear that should these pieces remained suitable a further series of chippings would have been made around the cutting edge - these final chips being about $\frac{1}{4}$ " in diameter.

WOBBLY GROUND.

From Ern Homann.

A weakness in the Earth's crust extends southward into the Pacific from Japan through the islands off New Guinea, Samoa, Tonga, the Kermadec Islands and passing through New Zealand. Along this line of weakness occurs volcanic activity and this is seen in its active state in the North Island of New Zealand. Three active volcanoes are associated in the Tongariro National Park constituted as such in 1894 following a gift of land from a Maori chief. These are Tongariro (6458ft), Ngauruhoe (7504ft) and Ruapehu (9175ft). Extensive ski slopes occur on these mountains and are visited by thousands in the snow season - a happy thought to have a built-in foot-warmer under the snow-drifts. North-east of these is Mt. Tarawera which killed 100 people in its last major eruption in 1886 and in the same line but off the coast is White Island first seen by Captain Cook in eruption in 1769 and has been continuously active since then.

Associated with these volcanoes and extending in a narrow band north-east but centred on Lake Taupo - scene of the most violent eruption some 1830 years ago when pumice was erupted over

several thousand square miles - is the Thermal Zone. Typical of this zone is the country round Rotorua. Here are found fumaroles ejecting steam, boiling mud springs and geysers. The Maoris called one boiling mud spring "The Pool of the Leaping Frog" as the mud boiled up and was thrown some distance to rejoin the rest with a distinct "Plop". It is rather strange to see steam coming from near the back wheel of a bus and to realize it comes from a crack in the bitumen. In the park at Rotorua steam vents and boiling mud are side by side with trees, shrubs and ferns. Two shallow concrete pools are there with water of a different temperature to soak one's aching feet. Citizens use the steam for heating, The maoris use it for cooking.

There are two theories as to cause of the steam vents and hot water pools. The first theory is that ground water percolates to the level of the magma (molten rock) where it is intensively heated, rises, is replaced by colder water so setting a convective circulation by which the water reaches the surface as steam or hot water. The second theory says that the magma as it cools condenses steam and other gases in the liquid portion. This causes the pressure to rise and the steam forces its way out into the overlying rocks where it may escape as steam, or be condensed in the ground water setting up a system as in the first theory.

Geysers are formed when a column of water becomes heated until boiling-point pressure is exceeded - deep in the ground the boiling point of water is much higher than 212degF. its boiling point at sea-level - and steam is flashed off. This expels the water above, reducing the pressure and causing more steam to form. When all the water is expelled the eruption ceases but if more hot water can flow in, the eruption can continue for some time.

At Geyser Valley at Wairakei about 100 bores have been put down to tap the steam-bearing rocks. This steam is channelled through a super-structure at the head of the bore, to separate the steam from the water which contains highly corrosive minerals and then the steam is piped away to turbines to generate electricity.

Not far from Wairakei is Rogue Bore. In boring it the drill stem plunged down into so large a reservoir of steam that efforts to control it have been entirely without result. Now it's a crater-like depression some 2-3 chains in diameter filled with boiling mud and erupting geyser-like every few seconds. Awesome certainly, but combined with continuously shaking ground, even felt in the bus, and shown in the opening and closing of cracks in the ground it was a place we were pleased to leave. Our Maori guide said the farmer no longer kept his cows here - it was on farming land - as all they gave was milk-shakes and that the sheep didn't need to be shorn - they shook their wool off.

KOSCIUSKO - 1969 (Concluded from Issue No.77)
By Miss Jean Galbraith.

Both species of Aciphylla also grew there with Caltha intraloba near the snow-drift and Epacris serpyllifolia with other dwarfed shrubs was colourful because its buds were red. It's tiny leaves differ from other alpine species of Epacris in being both flat and spreading. Where we worked our way round the big snow-drift to the summit it was much drier - the snowgrass turf much eroded by vehicles which had disregarded the notice that directs them to remain on the road. Near the summit there was only a scattering of flowers,

Ewartia nubligna Silver Edelweiss

Covering rocks and dotted with tiny everlastings;
Ranunculus muelleri Felted Buttercup

With silver felted leaves undivided or nearly so, scattered over the ridge, and occasionally tufts of the beautiful Helipterum albicans var. alpina in flower - big white everlastings on 6 inch stalks above tufts of silver white leaves.

We scrambled down to the pass for lunch and then followed the wide glacial valley almost southward to Lake Cootapunda. The valley was threaded with interlacing streamlets from the melting snow, and the whole valley was sprinkled with flowers - thousands of flowers, of most of the species I have mentioned as growing on the higher ridge (including a broad patch of the exquisite white Anemone Buttercup) and others not seen there, including Erigeron pappochroma Violet Fleabane

Its white or lilac tinted daisies familiar to us on Baw Baw, and its rare variety setacea with $\frac{1}{4}$ to $\frac{1}{2}$ in velvety rosettes like constellations of green stars. Only one was found in flower, its flower as big as the rosette.

Euphrasia glacialis

An Eyebright with broad snow-white flowers clustered on short stalks, and with bluntly toothed leaves.

Euphrasia scabra

With characteristic sharply toothed leaves.

Euphrasia collina Purple Eyebright

A short large-flowered alpine form with flowers white or lilac.

Plantago gunnii

Shining dark green rosettes 1 - 3 ins across, with almost threadlike shortly erect stalks bearing one or two stalkless flowers and of course innumerable familiar species like the tall white Colmisia longifolia and golden Senecio pectinatus.

POLLUTION - AN AWAKENING?? We have read of the Senate Select Committee's concern over water pollution. It has been reported that a Moe Councillor whilst inspecting the Mt Baw Baw ski lift found a notice which reminded people that the water of stream there was polluted. He is justifiably concerned.

COWWARR DIARY

Some more interesting notes from Mrs. M. Hague.

On a warm Summer day in December I found about a score of very white oval rubbery objects lying in the silty sand by the Salamanders hide out by the river. Being quite excited I took about eight and brought them home. I knew these were the Salamander eggs. I put them in a shallow tin of sun warmed sand and placed the tin on rockery stones near the kitchen door where we could keep watch on them, thinking to witness the hatching out process. They were definitely there just before lunch, yet after the meal, only the sand remained - not a sign of the snow-white eggs. They had vanished! But on the fence sat Mr. Kooky. looking so innocent - There, without doubt was the culprit! Next time I find any Sally's eggs they will be covered from such sharp eyes.

At Easter my daughter and I visited Lightning Ridge opal fields. We met a few of the miners who were getting satisfactory results. We went into the walk-through mine. The minerals, opals, etc. are 75 million years old and have been left by a series of inland lakes. Opals are not found on the surface, but under 30 to 90 ft. of sandstone to get to opal bearing parts. The gravelly despoil is gouged out, pulled up by a winch, put on a truck and taken away to the miners puddling tank. Opals at Lightning Ridge are found formed in "nobbies" or lumps, and can be ruined if chipped with picks. Opals are sedimentary glass. L.R. is the only place where the black opal is found and there are bright colours on black opal. Good specimens are worth \$460.00 per carat. There is no water penetration where these are found. Also L. R. has best safety record being no gas formation even candles can be used underground and there is no dust. We found it a colourful place to visit and met out-back friendliness.

A SPECIAL VISITOR

From Mrs. Melinda Wildes.

The house in which we live is surrounded by natural bush, and one of the special visitors I sometimes have on a hot day is a large goanna, (Lace Monitor, Varanus varius). He is about 7 feet long and he loves to come to the coir mat in front of the triple glass doors in the front of the house. He stays there watching me as I go about my housekeeping - he is very alert and inquisitive looking. It has become a routine for him to come to the glass doors in the front as if to announce his arrival, stay there for some time and then do a tour of inspection of the outside of the house and surroundings. He pays special attention to the wood-heap and rubbish tip. When I see him coming down the bush track I hurry to make sure that all outside doors are shut as he is so friendly I wouldn't be surprised to see him arrive inside and I shudder to think of what would happen then. I think we must have built our house on their

territory as there are two others not as big or as friendly but charming just the same.

L.V.F.N.C. LIBRARY - ADDITIONS

The following books have been generously donated to the club since the compilation of the Library List.

BIRDS.

BIRD DOCTOR. Katharine Tottenham. 1963.

THE BIRDS. Roger Tory Peterson. 1968.(Life Nature Library ser)

GENERAL

AN AUSTRALIAN ANIMAL BOOK. Charles Barrett. 1947.

SILENT SPRING. Rachel Carson. 1964.

PLANTS

THE FAMILIES AND GENERA OF VICTORIAN PLANTS. Uni of Melb. 1953.

THE STORY OF PLANTS : AND THEIR USES TO MAN. J.Hutchinson,
R.Melville. 1948.

WILDFLOWERS OF VICTORIA. Jean Galbraith.

PERIODICALS

THE EMU. R.A.O.U. Qly. 7/1923 - 1/1930.

NATURE NOTES. Ringwood (School) Inspectorate. 6-11/69; 12/69.

TREES. Men of the Trees. Sun./51 - Win./66.

ABOUT MEMBERS - - AND NEW THINGS.

Pleased to know that Mrs. Mc Elroy is on the recovery list following her recent illness.

Naturalists are on the move again - Mr. and Mrs. Homann are off shortly to sunny northern N.S.W. for the winter and a little later Miss Nancy Rossitor will head off to the "Centre".

Two wonderful new discoveries have been made by Mr.Keith Rogers, of Wulgulmerang. The first was at Forlorn Hope Plains and is Victoria's first recording of Glossostigma spathulata. The second was made of Pterostylis fischii about 3 miles east of his home.

Another interesting orchid discovery was that of Pterostylis pedoglossa near Waratah Bay and also near Darby River in Wilsons Prom. National Park.

SALE NOTES

Sale members are disappointed at the lack of success of a club deputation to the Sale City Council requesting them to refrain from using part of Flooding Creek near Lake Guthrage as a rubbish dump.

During March Sale club members accompanied the Bairnsdale club on an excursion to Cape Conran led by Mr.McDonald. The subject was marine life and the state of the tide very low making it one of the most interesting and enjoyable excursions in that area.

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING held at
the home of Miss N.Rossiter on 26/5/70.

COST OF MAGAZINE

Further discussion revolved around the cost of the magazine including the use of advertising as was recommended at the general meeting. The editor will make further inquiries.

CONSERVATION COUNCIL OF VICTORIA

The club will give maximum support to this organisation and will become a corporative member of this body.

GENERAL MEETING AND EXCURSION

Final word of our lecturer had not been received from the Mines Dept. and as a consequence arrangements for the excursion could not be finalised. (Still not available as this goes to print).

PROPOSED NATURE RESERVE - KONGWAK.

Members were pleased to endorse suggestion of 1 Mrs. Lyndon (who came from Leongatha for the evening) and the club will approach the Korumburra Shire asking that 5 or 6 acres of splendid orchid country made spare by a recent road deviation be made a wildflower reserve. The area is on Stewarts Rd. about halfway between Kongwak and Outtrim.

PROPOSED ROSEDALE RESERVE

It was reported that a brief survey of an alternative area proposed by A.P.M.Ltd indicated that it was not nearly as prolific as that originally asked for nor that proposed by the Forests Commission. Mrs. Thompson will approach the A.P.M. to see if perhaps we had missed out on an aspect of the area they had proposed.

PROPOSED DARLIMURLA RESERVE

The question of a reserve in this area will be revived and a special excursion is proposed for mid-August. It is hoped that we will be joined by a representative of the Forests Commission on the day.

NEXT EXECUTIVE MEETING

Will be held on Tuesday 30th June at the home of Mr. and Mrs. Peterson, 14 Barry St., Morwell.

SUBSCRIPTIONS ---- Members are advised that subscriptions are now overdue - should you have not paid them.

SUPPER LIST

For the meeting of 26th June are:-
Mr. and Mrs. Lubcke.

Latrobe Valley Naturalist.

Details of contributing Clubs are as follows:-

LATROBE VALLEY F.N.C.

Honorary Secretary:- Mr. S. Belgraver.,
179 Lloyd St.,
Moe. 3825

Meetings commence at 7.30pm and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary:- Miss D. Johnson.,
Box 302,
Sale. 3850. Tel. Sale 3282

Meetings commence at 8.00pm and are held at the
C.W.A. Rooms., Macarthur St., SALE.

TRARALGON F.N.C.

Honorary Secretary:- Mrs. M. Wood.,
13 Lafayette St.,
Traralgon. 3844. Tel. T'gon 72117

Meetings commence at 7.30pm and are held at the
Grey St. State School., TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary:- Mr. J. Brooks.,
Nobel St.,
Warragul. 3844. Tel. W'gul 21563

Meetings commence at 8.00pm and are held at the
Albert St. State School., WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication
of the Latrobe Valley Field Naturalists' Club. Contributions on
any aspect or branch of natural history are invited from members
of all clubs and should be addressed to:-

Honorary Editor (J. M. Peterson.)

14 Barry St.,
MORWELL 3840.

Tel. Morwell 42129.

JULY, 1970

ISSUE No. 79.



Latrobe Valley Naturalist

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THE NATURALIST and THE EDITOR

We all send our very best wishes to our Editor and Senior Vice-President, Mr. Jim Peterson, who is having a sojourn in Austin Hospital (Ward 14 West), Heidelberg. Doctors are satisfied with the result of the operation on his back, but at this stage we do not know how long he will be there.

We do know his keen interest in the Naturalist is not less because the magazine has for the present an Acting Editor. About six members are carrying on the work done in the past by "the Petersons".

The Acting Editor is Mrs. L. Padfield, 42 Strzelecki Road, Yallourn, 3838.

Best wishes from us all, Jim. We miss you and look forward to your return.

"NATURE PHOTOGRAPHY" EXCURSION TO GORMANDALE AREA ON 23RD MAY, 1970

by Mrs. Bon Thompson

The weather stayed fine all day for the May excursion with Mr. Ted Rotherham. First stop was the Gormandale Reserve. This is a delightful spot, even if small, because there is always something of interest the whole year round. The Sunshine Wattle (*Acacia botrycephala*) was in full bloom and made a very welcoming sight. Also flowering, if not so obviously, were *Correa reflexa*, Mosquito Orchid (*Acianthus exertus*), Prickly Geebung (*Perseonia juniperina*), the Silver Banksia (*Banksia marginata*), Erect Guinea-flower (*Hibbertia stricta*), Common Heath (*Epacris impressa*), and a few solitary flowers on the Fanflower (*Scaevola ramossissima*) and the Cranberry Heath (*Astroloma humifusum*). As there were 24 people on the excursion the questions on the practical side of photography commenced at the meeting place and continued at each stop.

Next stop was the Scenic Lookout just past Willung, and then we turned down Lay's Road and eventually came onto the Old Port Road which was the original road from Rosedale to Port Albert. As we approached this road from the opposite end to usual, the "guides" had a little difficulty finding the turn onto the Old Port Road. However, all's well that ends well, and the Little Tower was next on the list. We had come through country abundant in Saw Banksia (*Banksia serrata*) with bushes of *Correa* almost on the road. Quite a number of birds were seen but, as I have difficulty with identification when both the birds and I are stationary, I will not attempt to name them here but will leave that to the more experienced. The view from the Little Tower was not as good as hoped because of the dull conditions, but it was quite a successful stop from a botanical viewpoint. Although no plants were flowering in profusion, there were some flowers on the Prickly Broom Heath (*Monatoca scoparia*), a delightful little bell flower that really needs a magnifying glass to appreciate it fully. A Beard Heath with many buds, but few flowers, was identified by Miss Galbraith as the Rough Beard Heath (*Leucopogon collinus*). This plant has terminal spikes of flowers, pink in bud, but with delightful hairy white bell flowers. One of the features of it is that the pointed leaves on the branches

sometimes turn down the stem. The soft Twiggy Guinea-flower (*Hibbertia virgata*) had only a few flowers yet. Mrs. Lubcke was the only member to find a flower on the Common Aotus (*A. villosa*). This plant was much smaller in every way than the same variety growing at Longford and the flowers had more red on them. The Tiny Greenhood (*Pterostylis parvaflora*) was flowering, too. The Tangled Dodder-laurel (*Cassytha glabella*) had its delightful small elongated orange fruit displayed.

The next area of interest was a reserve created around a swamp as a watering place for stock using the road. Here the Bushy Clubmoss (*Lycopodium deuterodensum*) and the Rough Comb-fern (*Schizaeaceae asperula*) grow. We had lunch at this spot and Mr. Rotherham used the Comb-fern to demonstrate close-up photography. There was much of interest here and at the other water reserve - Black Swamp - a little further on. Plants of the Pigmy Fly-catcher (*Drosera pigmea*) were found, though not in flower, Sphagnum moss was growing in a damp area, much Selaginella and Yellow Hakea (*H. nodosa*) were in flower. Dagger Hakea (*H. teretifolia*) was not in bloom but the fruits with their long curved points were interesting. The Rush Lily (*Sowerbaea juncea*) had a few flowers and Sweet Wattle (*A. suaveolens*) was commencing to flower. Toothed Boronia (*B. anemonifolia*) also had an occasional flower. The water plant growing on the second swamp was the Yellow Marsh-flower (*Villarsia exaltata*).

The road passed an area of large Black-boys (*Xanthorrhoea australis*) and other interesting spots which time did not permit of investigation. A small drooping bush along the roadside was identified by Miss Galbraith as *Pultenae hispidula*. It is very soft to feel, the leaves grow all around the stem giving a starry effect, young branches are very hairy and the stipules are quite obvious.

Finally, the excursion took a census of an alternative area that had been suggested for a reserve on the Lime Pit Road, but found it rather barren compared with the Chessum Road area. Despite the number of people present and the fact that we identified even the tiniest of plants and the Eucalypts, we were able to get only 43 plants on the list.

During the day many varieties of fungi were found but unfortunately not identified. However, with Mrs. Lyndon's help I have positively identified the lovely mauve fungi as *Hygrophora lewellinae*, an uncommon species, and the little gilled fungi Mr. Eadie found on the branch was very like *Claudopus variabilis* in the fungi book. Orange Cup Fungi, little red umbrellas (probably *Hygrophora miniatus*), olive green toadstools, Honey Fungi (*Armillaria mellea*), little fawn parasols and others were found.

Even a little geology was observed. Altogether a very busy and enjoyable day.

SELECT COMMITTEE ON WILDLIFE CONSERVATION

The following article consists of a letter from the House of Representatives. The Latrobe Valley Field Naturalists Club intends to make submission to the Committee. We would be pleased to hear from members regarding any particular items they wish to be included in the submission.

"The House of Representatives have set up a Select Committee to inquire into and report upon the following matters -

- (a) The need for an urgent and comprehensive survey of wildlife populations including birds, mammals of the land and water, and reptiles, and their ecology to enable conservation measures to be effectively applied to threatened species;
- (b) The adequacy of the several systems of National Parks, Reserves, etc. of the States and Territories to ensure that at least minimum areas of the major animal habitats and the wildlife of the continent are preserved, held securely, and are properly managed in the national interest;
- (c) The effects of pollution and the widespread use of pesticides on wildlife population;
- (d) The effect on the population of kangaroos of the trade in meat and hides and the effect of other industrial exploitation on wildlife;
- (e) The need for international and interstate agreements for the effective conservation of migratory animals;
- (f) The threat presented to wildlife by the large numbers of domestic animals gone wild, particularly in Northern Australia, and
- (g) The need for a Commonwealth wildlife conservation authority.

The resolution of appointment provides 'that the Committee recognise the control in these matters exercised by the States and seek their co-operation in all relevant aspects'.

I have been directed by the Committee to write to you inviting attention to the Inquiry. The Committee is desirous of obtaining written submissions from interested organisations and persons and if there is any matter within the terms of reference that you or your organisation may wish to bring to the attention of the Committee, I would be pleased to receive a written submission as soon as possible, and preferably by Friday, 7 August 1970."

GLACIERS AND LAKESBy Mr. Ern Homann

The most striking feature of the landscape of the South Island of New Zealand is the high stark mountain range of the west coast. It is perhaps a series of ranges, but the effect is of a high barrier not far from the sea. These mountains are higher than anything we have in Australia both in absolute height, with Mt. Cook towering to 12,349 feet, and in average height, with many peaks topping 10,000 feet and very many higher than our Mt. Kosciuszko.

Striking, too, is the dazzling white ice-cap that all the high ranges wear, particularly between latitude 43 degrees south and 45 degrees south. These are permanent and represent the 360 named glaciers of the South Island. There are seven small glaciers only in the North Island, all on the slopes of Mt. Ruapehu, an active volcano (9,175 feet). The South Island glaciers are what remains of the last Ice Age, which began its advance some 50,000 years ago, reached its maximum extent about 25,000 years ago and retreated about 10,000 years ago. The mountain barrier rises steeply from the sea of the west coast full in the path of the westerly systems of weather, typical of the temperate regions of the Southern Hemisphere, and so rain and very often snow fall on these high peaks. Continuous snow falling on these high peaks and valleys gives ideal conditions for the formation and continuance of glaciers. The weight of the snow and its blanketing (insulating) effect preserve the hundreds of feet thickness of ice forming the main body of the glacier. This ice when exposed has a bluish colour which is most unusual.

The glaciers are retreating now, but at their greatest size they had much to do with shaping the mountains, rivers and lakes of the South Island. The weight and sharp edges of the ice shaped the mountains into sharp peaks, ground out deep, steep valleys falling almost sheer, and in the valleys wore the rocks down to the bedrock to form sites of lakes. As the glaciers retreated the rock debris (moraine) at the snout of the glacier was left behind and so dammed the valley. The lakes thus formed are very deep, owing to the grinding action of the glacier, and normally are very beautiful with their waters various shades of green due to the melted snow in the streams which feed them. Sheltered as they mostly are in deep valleys, the mountains which shelter them are reflected in the still water.

Evidence of glaciation is present in most valleys, where terraces and shingle banks indicate the former presence of glaciers. The fertile Canterbury Plains were formed by the carrying down from the mountains by glaciers and streams of the gravels and silts that form the basis of their soils. The beautiful fiords, e.g. Milford Sound, were formed partly by glacial action and partly by sinking of the sea bed. On the west coast two glaciers are notable in that the lower extremity is about 1000 feet above sea level. In fact these terminate in rain forest consisting largely of beech (*Nothofagus* species, as is our Myrtle Beech of the South Cascade Creek) and ferns. These two, the Fox Glacier and the Franz Joseph Glacier, are unique in descending to such low levels and are the scene of much tourist activity.

ABOUT BANKSIAS - AND OTHERSby Mrs. Ellen Lyndon

Like Mr. Homann, I have never been successful in striking *Banksia ericifolia* from cuttings. I was interested to see it growing like a weed all over the Sydney sandstone, espaliered into all sorts of weird shapes on the rocks of North Head. It grows very willingly here in our wet climate, my only quarrel with it being that the handsome cones are completely enclosed and hidden by the lush foliage.

My three year old *Banksia serrata* flowered profusely this summer and the huge cones attracted all manner of wasps, bees and moths, as well as the honey eating birds. One of the most attractive small banksias is *B. canei*, named after its discoverer, Mr. Cane of Maffra. With me it is a compact little bush to four feet high, with very ornamental prickly foliage and neat yellow-green cones; I find it ideal for decorative work. Just now in mid April the tip of each branch bears a rosette of new branchlets, plum coloured on grey woolley stems, almost like flowers. The whole plant has a Christmassy look, a most desirable garden shrub. Mine sat sad and sulky during the wet years but delighted in the drought year and the hot dry summer. *B. canei* is found in the Macalister River area, and we saw it in the hills on the Club weekend to Wulgulmerang. Remember?

I put in cuttings of the Baw Baw Berry, *Wittsteinia*, collected for their flowers in December of 1967. Every one has rooted but is making slow growth. Another Alpine that is more adaptable is *Sceleranthus*, the Twin-flowered Knawel, a cushion plant suitable for the smallest garden. It is indifferent to wet and drought and forms delightfully rounded green humps spiked with the minute flowers. Nurseries are selling it freely to native plant enthusiasts, and it has been used in a modern pebble garden in front of the smart new Water Trust offices in Leongatha.

A COMMENT ON FERNSby Mrs. Bon Thompson

Ferns in the bush are beautiful at the moment. Some have lovely new curling fronds, while others have the sori now. This is the time for a drive along any road that has ferns. As this is the season to hear the lyrebirds, it is possible to combine the two.

Some people miss the enjoyment of a ramble in the fern gullies at this time of year because of the leeches. I know some people are allergic to leeches; but for those who are not, if you pull your socks over your slacks, wear good boots, light colours that can show any leeches easily and carry a little common salt, you will have an enjoyable ramble. If seen when they land, the leeches can easily be flicked off, and if they do attach themselves a sprinkle of salt will make them release their hold immediately. I speak from experience!

THE FERNS AND FLOWERING PLANTS OF WILSON'S PROMONTORY NATIONAL PARK

The National Parks Authority has printed a booklet entitled "The Ferns and Flowering Plants of Wilson's Promontory National Park". The Foreword is by Dr. Smith, Director of National Parks, and the Introduction is by Mr. J. Willis, Assistant Government Botanist.

"This work does not claim to be a comprehensive list but is hoped to serve to stimulate inquiry and exploration." It includes 665 native species and 103 naturalised introductions.

It gives the botanical name, the common name and the type of habitat of each plant and is arranged in a systematic order.

The booklet is available from the National Parks Authority,
State Public Offices,
Treasury Place,
Melbourne, Vic. 3002

at 25 cents including postage. It has been suggested that the Club may order copies for members at the next meeting.

For members interested in the Promontory or in having a list of that area this publication is very worth while.

A DEAD BIRD

by Miss Jean Galbraith

It is a pity that sometimes it is only when a bird is injured or killed by a car that one sees all the beauty of colour and pattern on its plumage. Yesterday Miss Christensen found a crushed bird on the Tyers road, and I did not for a long time recognise it as a Banded Landrail, because it is a shy bird and occasional glimpses of one give a poor idea of its colouring.

Only when one actually handles the bird is the full beauty of its plumage visible. The bright cinnamon band across the shoulders, the buff band below the grey throat, the barred black and grey body and rich brown wings so beautifully spotted with white were beautiful even when crushed and stained.

It is not always possible to avoid birds when travelling, but nature lovers try to save them, sounding the horn or slowing down if possible. It may well have been impossible even for a careful driver to miss the landrail, which probably ran suddenly across the road. It is not a bird that lingers on open ground.

BOOK REVIEW - "THE LYREBIRD"by Miss Jean Galbraith

During the last few years books for Naturalists have appeared in greater numbers than ever before, reflecting increased interest in natural history. Some are of general interest, others specialised, and amongst these last is The Lyrebird by Dr. L.H. Smith.

Not only 'birdos' but all naturalists and nature lovers will enjoy this book with its wealth of reliable information and its many beautiful pictures.

Certainly this reviewer not only enjoyed the book but learned a great deal from it - especially about the development of the male lyrebird's beautiful tail. This is illustrated by a series of fine pictures illustrating the change from broad 'ordinary' feathers to the delicate filaments which form the shimmering cascade of the bird's display.

THE SNAIL CHASEby Mrs. Bon Thompson

Have you ever been snail 'catching' in the bush? With Dr. B. Smith's letter in mind, we combined appreciation of ferns with the snail chase. I asked Dr. Smith what constituted a slug for the purpose of the survey. He replied that it was a snail without a shell, i.e. when allowed to move the animal puts out eyes on stalks. He stated that there is only one native slug and that it was fairly rare.

We went up Traralgon Creek and found five different species of snails and slugs - three introduced and two native. Yes, one of them was the black native slug. On the excursion to Glengarry North we found two more. So apparently they are not so rare in this area.

Dr. Smith also asked us to look for the small snails approximately 0.5 to 2 millimetres in length. He states there are about 90 different species of these tiny snails. Quite by chance we found one, about 1 mm. long, on a leaf which also had a small slug on it. Now Dr. Smith informs us that this tiny fellow, which looked like a tiny grain of sand to the naked eye, could be carnivorous. I cannot imagine such a tiny creature being predatory. To positively identify it Dr. Smith will have to dissect it and examine its internal organs. No wonder they need powerful microscopes at the Museum!

NATIVE PLANTS FOR THE GARDEN - TALK BY MISS GALBRAITH ON 26TH JUNE, 1970
by Mrs. Bon Thompson

Miss Galbraith gave a very interesting and informative talk to the Club on the subject of Native Plants in the Garden. The talk was confined to native plants that will grow in Gippsland gardens.

Miss Galbraith explained the adventure and enjoyment of watching an area of native plants in the bush. Any area like this is not always exactly the same, due to changes - either new plants of the same species appear, sometimes plants that have not appeared for a long time suddenly grow from seed, or mosses and lichens come and go.

In the garden, the enjoyment is more from achievement and appreciation of the beauty of the plants. Both these enjoyments are complementary to each other. In the garden we can grow plants native to other States.

Miss Galbraith gave important DOS and DON'TS. Amongst the important things to do was to provide a well-drained position and, if possible, build up the area about 6"; use soils that won't pack together, add sand if the soil is not free enough. Finally, give some support - even a good sized stone will protect and support a small plant and give it a cool place for its roots. About 2" deep of pebble mulch is a great help and reduces weeding.

Amongst the DON'TS was not to transplant natives unless they are very small, because they will not stand disturbance of their root systems. Don't transplant from the bush as very many will die. Rather obtain plants from a nursery or seeds from the seed bank of the Society for Growing Australian Plants. Another method is to grow plants from tip cuttings. Summer is the best time for these as they like humid conditions but not direct sunlight. To prevent wilting until you get them home, carry them in a plastic bag securely closed. Use washed sand for striking and put a plastic bag securely over the pot to form a miniature glasshouse. The last important don't was not to plant in a windy position unless well staked.

Seeds of all wattles and peas should be soaked overnight in hot water before planting, while bottlebrushes, tea-trees and a few others will germinate well in wet moss. When planting out water the plants in, don't tramp them in or roots may be broken or soil disturbed around them.

Miss Galbraith then showed slides of suitable plants, dividing them into wind-break plants, shrubs, shade loving plants, smaller plants for open positions, ground cover plants and annuals. Finally there were slides of some very special plants that have been grown in gardens but need special knowledge and care for them to survive.

EXCURSION TO GLENGARRY NORTH WITH MISS GALBRAITH ON 27TH JUNE, 1970
by Mrs. Bon Thompson

The day was not very promising; however, five cars turned up and we set out in a light drizzle of rain. By the time we reached Glengarry North the weather had cleared and stayed that way. We found many flowers of the Cobra Greenhood (*Pterostylis grandiflora*) which lived up to its name as it had lovely large flowers standing up to 15" high. There was also a beautiful specimen of the Tall Greenhood (*Pterostylis longifolia*). The Nodding Greenhoods (*Pterostylis nutans*) and the Gnat Orchids (*Acianthus exertus*) were in flower, as were the little red bells of Cranberry Heath (*Astroloma humifusum*) and a few bright yellow flowers on the Hop Goodenia (*Goodenia ovata*). The spikes of Common Heath (*Epacris impressa*) were very colourful and stood out against the green of the bush. The brown seed pods of the Hyacinth Orchid (*Dipodium punctatum*) still had seeds in them. Lichens were quite prominent with a number of different varieties.

The fungi were mostly small but colourful: Little orange Ear Fungi, Honey Fungi, toadstools, brown Cup Fungi, wavy Bracket Fungi and Flame Fungi. Many colourful beetles were observed and even two slugs collected for Dr. B. Smith. These were later identified as the Black Native Slug.

We were quite pleased to find plants of the Small Tongue Orchid (*Cryptostylis leptochila*) in this area as we did not know of its presence. Mr. Marshall informs me he found similar leaves further up the road.

Instead of returning the same way, it was decided to continue on the road into the bush and 14 miles later we arrived at Tyers. It was a very scenic road and everyone felt it would be worth a return trip in the Spring after the road had dried out a little. There were large patches of ferns, a beautiful area of the Hairpin Banksia (*B. spinulosa*) in full bloom, the Grevillea-like blooms of the Silky Hakea (*H. sericea*), a few early blooms on the Spreading Wattle (*Acacia diffusa*), and a few late blooms of the Sunshine Wattle (*Acacia botrycephala*). We also noticed a hillside with many Austral Grass-trees (*Xanthorrhoea australis*) growing there. You will know this as the subject of the Car Sticker. Along this road the heath was beautiful, and there were many interesting patches of country we would have liked to investigate if the light had not been failing.

INTERESTING DISCOVERY: Amongst the interesting discoveries by Club members, the latest excitement is a Eucalypt collected by Miss Rossiter on the Eyre Highway. After failing to identify it from textbooks, Miss Rossiter sent it to the Perth Herbarium, where it was found to be an undescribed species. More news of this later.

Ed.

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING
held at the home of Mr. T. Moretti on 30/6/70

Permission was granted to the National Parks Authority to print 50 copies of the "Key to Ferns of Victoria", first printed as a supplement to our Naturalist. The Authority is to issue these copies to National Parks Rangers, etc.

COST OF NATURALIST

Final decision was made on the price of the Naturalist. It is regretted that the increase in price is necessary, but from next Annual Meeting the price of the Latrobe Valley Naturalist will be \$1.50.

SUPPER

A container will be placed on the supper table at future meetings to receive a 5 cent donation from members to help defray the cost of providing supper.

ACTING VICE-PRESIDENT

Miss Galbraith has accepted the position of Acting Vice-President while Mr. Homann, President, and Mr. Peterson, Senior Vice-President, are unable to attend meetings.

NEXT EXECUTIVE MEETING

Will be held on Tuesday, 28th July at the home of Mr. and Mrs. O. Thompson, Traralgon South.

SUPPER LIST for the meeting of 24th July:- Mrs. L. Clarke,
Mrs. L. Padfield.

LATROBE VALLEY FIELD NATURALISTS CLUB

Excursion, 25th July, will probably be to the Rintoull Creek area.

Leader to be Paul Harris, one of our younger members who is interested in Geology which is the subject of the excursion.

Cars to assemble at Tyers at 1.30 p.m. Further details at 24th July meeting.

* Subject for meeting will be "Geology"; speaker unknown at present.

TRARALGON FIELD NATURALISTS CLUB

Next meeting will be held on 7th August. The subject will be "Gemstones" and the speaker will be a member of the Gemmological Society of Morwell.

The Traralgon Club and visitors will join the Gemmological Society on its excursion on the following Sunday. Details of the excursion will be announced at the meeting. Meeting is held at the Grey Street State School.

WARRAGUL FIELD NATURALISTS CLUB

Next meeting will be Friday, 17th July. Speaker will be Mrs. Thompson assisted by Mr. Thompson projecting slides. Subject will be "Ferns", which are in their glory just now.

* Late message: Dr. Douglas, a Geologist with the Mines Department, will speak on "Fossil Trees of Boola Forest".

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563

Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

Acting Honorary Editor (Mrs. L. Padfield)
42 Strzelecki Road,
YALLOURN. 3838 Tel. Yallourn 622581

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AUGUST, 1970

ISSUE No. 80.

Latrobe Valley Naturalist



Protect and enjoy

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MEETINGS AND EXCURSIONS

WARRAGUL FIELD NATURALISTS CLUB

Next meeting will be held at 3 Nobel Street, Warragul. It will take the form of a members' night, with the subject "Present and Future Reserves in our Territory".

Members are asked to bring suitable slides to illustrate the subject.

TRARALGON FIELD NATURALISTS CLUB

Next meeting will be September 18th.

Members please take note of change in date of meeting; this is due to school holidays.

Subject of the meeting will be "Orchids".

LATROBE VALLEY FIELD NATURALISTS CLUB

Meeting on 28th August will be a Film Night. Suitable films of a natural history interest are being obtained for this night.

Excursion on 29th August will be to Ricardo's Road in the Darlimurla area. This area is the subject of discussion for a reserve, and we will be meeting with the Forest Officer for the district to discuss this important matter.

Dear Fellow Field Naturalists,

This month it is pleasing to have so many articles from members. Especially interesting is the article from Mr. K. Rogers telling us more about the Cobberas.

Mr. J. Brooks has provided information about the Conservation Council of Victoria.

An appeal to all subscribers to let us know any items of Natural History interest. All contributions are welcomed by the Acting Editor who urges members to write a small article for the Naturalist. Remember, it is YOUR paper.

ABOUT L.V.F.N.C. MEMBERS

Miss N.T. Rossiter is back from a trip to Central Australia. In a letter she said that the days were warm and sunny but the nights were very cold. There were plenty of interesting things to see, and the MacDonnell Ranges were lovely in the changing light.

Mr. Homann tells us that he is enjoying good weather in N.S.W. Coral Trees are coming into bloom, as are the Cootamundra Wattles.

Mr. Jim Peterson is able to leave hospital for weekends at present. We hope he will be discharged home soon.

We are all thinking of you, Jim, and hope you are reading the articles put together by the Acting Editor.

CAR STICKERS

As not much has been said about the Car Stickers lately, it is possible that new members may not be aware of their existence and availability. Older members will remember that the idea originated with Mr. Jim Peterson, the aim being to enable Field Naturalists throughout Australia to recognise each other on their travels and also to further the cause of conservation of nature. The sticker was designed by Mrs. Camilla Jakobson, a Latvian member of our Club, who so simply and ably captured the Australian atmosphere with one of our oldest trees, the Grass Tree, which is found in almost every State.

The stickers have been sold to Field Naturalist Clubs and kindred organisations all over Australia and are available from Miss Betty Kemp at Club meetings for 20c each while our present stocks last. When new supplies are printed they will be 25c each as costs have risen since their 1966 inauguration.

PLANT REMAINS IN THE MEZOZOIC BEDS IN THE BOOLA BOOLA FOREST

Address by Dr. Douglas, Supervising Geologist in the Department of Mines,
on 24th July, 1970.

From Mrs. Bon Thompson.

Dr. Douglas commenced his talk with a general description of areas of mezozoic rocks throughout the world, including areas in Victoria and a fresh water basin in the Boola Boola region. He explained how these rocks were laid down between 120 and 100 million years ago and how, through erosion, the fossilized plants are representative of a larger area than where they are found.

The period of geology in the Boola Boola area is known as the Lower Cretaceous Age and consists mostly of sandstones, conglomerates and mudstone. The finer the texture of the rock the better the fossil remains. The rocks contain fossilized charcoal, broken stems, leaves and, most important, the micro-reproductive organs or pollens.

There are two forms of fossils:

- (1) Impression fossils that are formed by an impression of the leaf, so that the fossil is similar to a photograph.
- (2) Compression fossils which are the whole leaf compressed, so that the fossil is in three dimensions. These fossils yield much more data with regard to plant anatomy.

Dr. Douglas then dealt briefly with the types of plants found in the fossils of the Boola Boola area and similar mezozoic strata. These included: (1) bacteria, (2) cryptogams, which include ferns, licopods, liverworts and other primitive plants reproduced by spores, (3) conifers (reproduced by pollen) and (4) angiosperms - flowering plants also reproduced by pollen. In the Boola Boola area there are fossil ferns with spore capsules of fungi on the base of the stem. These fungi spore capsules could be clearly seen on one of the slides. Horsetails, which in the past were world-wide, are now a Northern Hemisphere plant but fossils of them are found in this area. Liverworts are poorly preserved. Some ferns present in the rocks can be affiliated with present day ferns. Ginkos are included in fossils, although there is only one living representative growing today.

There are groups of plants in fossils that have no living representative today. These include the fern-like plants, which are prominent in fossils in the Boola Boola area, but which had seeds, not spores. Another group had palm-like fronds and constituted an understorey of the forest as bracken fern does today. The evolution of plants can be traced in fossils but the context of the environment is mostly speculation.

This period of time was the period of the dinosaurs, so fossil remains of these should be found in mezozoic rocks. However, very few have been discovered; a claw was found in South Gippsland. At Koonwarra, insect

and fish fossils are present in mezozoic rocks. Tyers River, Rintoul's Creek and Eaglehawk Creek are good areas for fossils.

Finally, Dr. Douglas discussed the use of fossils in geological studies. The most important fossils are those of the fertile organs of the plants, i.e. the spores or pollen. When rocks contain these fossils the rock is dissolved away, in a laboratory process, until the fossil is left as a microscope slide. Then the fertile organ is studied and named. These organs are very important because they are distributed throughout the sediment by wind and water and are far more wide-spread than the actual plants. They can also be found easily in the bore cores from drills. In compression fossils the cuticles of the leaf can be separated. These have very distinctive characteristics, e.g. showing different stomata and arrangement of hair bases, and can be positively identified. This identification helps to assimilate areas of similar formation and areas that are probably connected. In this way geologists have a much better idea where the drills should be bored in exploration for oil, etc.

Dr. Douglas then showed slides taken at high magnification through a microscope. These included the cuticles of pinnules of ferns showing different anatomical arrangements and also slides of different conifer pollens.

At the end of the address, Mr. Don Lyndon moved a vote of thanks that was loudly acclaimed.

GEOLOGICAL EXCURSION TO RINTOUL'S CREEK ON 25TH JULY, 1970

by Mrs. Bon Thompson

The excursion, under the leadership of Paul Harris, was very successful. There were 20 members present.

Because of the wet conditions the cars were unable to go down W4 track. However, under Paul's guidance and with the aid of shovels, big picks, little picks, broad-bladed knives, Paul's brush, an axe and a hammer and chisel, many fossils were unearthed on Rintoul's Creek Road. The fossils included three different types of fern-like plants, two broader leafed plants, a grass-like plant, many pieces of charcoal and a larger unidentified plant.

Although the weather was fine for most of the day, a heavy shower in the late afternoon dampened members' enthusiasm and, after a roadside cup of tea and a chat, everybody headed homewards about 4.30 p.m.

CONSERVATION COUNCIL OF VICTORIAInformation supplied by Mr. J. Brooks, Warragul

The above Council is a federation of constituent organisations having among their objectives Conservation. It was formed at a meeting in Richmond on 30th October, 1969. The constitution was presented to a meeting held on 18th June, 1970.

The Objects are:-

1. The maintenance and preservation of the natural environment and the undertaking of steps likely to assist in the improvement thereof;
2. Promotion of the practice of the wise use of all natural and man-made resources so as to enhance the quality of the environment in its immediate and long term aspects and for the benefit of the community as a whole;
3. Promotion of scientific research into the factors which have operated to evolve the various species and/or associations which constitute the environment;
4. Investigation of threats to the survival of any species and/or communities;
5. Opposition to the pollution or degradation of air, land and water;
6. Encouragement of the spread of knowledge relating to all or any of the foregoing;
7. The planning and implementation of all steps required to achieve the foregoing objectives;
8. Undertaking such other conservation activities as the Council shall from time to time adopt.

The Functions are:

The Council will:

1. Encourage and support its member organisations to act in specific fields of particular interest to those organisations;
2. Aim to act as the mouthpiece of its member organisations in presenting a common viewpoint on relevant issues to Government, any government department or public authority, the body or persons deemed most competent to take appropriate action on a matter in question, the Press and other media of public information;
3. Set up study groups for the purpose of assembling information on specific problems to assist the Council in formulating policy;

4. Consider conservation matters of general and/or state-wide public interest or concern presented by affiliated organisations;
5. Institute action on conservation problems which may not be within specific fields of activity of existing conservation societies;
6. Act as a clearing house and repository of information on conservation matters.

Rules and regulations for membership of the Council were laid down; also the entitlement of members, appointment of councillors and fees were dealt with. Such matters as quorum, meetings, the executive committee, office bearers and other matters necessary in a constitution were clearly stated. There were six sections dealing with financial matters of the Council.

The agenda for the meeting included reports from Legislation Committee and Membership Committee, and the nomination of President and Executive Committee for 1970/71.

The proposed date for the next meeting was 2nd October, 1970.

Also included with the constitution was a list of Clubs that are already members. As stated in the July Naturalist our Club is now a financial member.

"WHITE MAN WILD ANIMAL" by Grzimek

The book "White Man Wild Animal" by Grzimek has a chapter about going to Russia to see the Ibex. The author writes of the thing that most impressed him in all the works of the Russian people. It was the planting of the big steppelands which were denuded of the trees along the rivers, etc. by ignorant settlers and rendered very drought prone. The scheme was originated by three 19th century Russian professors, who managed to get co-operation from farmers and reduced erosion, frost, etc. and brought an increase of 4 to 5 hundredweight per hectare in production.

The National Windbreaks are 60 feet wide and stretch away to the northern and southern horizons like autobans, not as aesthetic as might be. They and the cross-planting strips take only 100th to 150th of the usable land. The Soviet Government has continued the work. Dr. Grzimek is against plantations if natural cover can be retained.

All very worth reading.

M.P.

THE COBBERASby Mr. K. Rogers

Some of the highlights of the combined excursion to the Cobberas mountains on 25th January of this year were described by Miss N.T. Rossiter in the February issue of the L.V. Naturalist. However, time did not permit of our exploring much of the long mountain top with its series of jagged peaks, whilst some members of the party did not reach the main ridge.

For that reason it is hoped these observations may be of interest to those who wanted to see more of that fascinating summit. From a botanical point of view, the various plants mentioned in this article are only included as being typical of the locality and altitude. No listing of the flowering plants has been attempted, since most species are common to a much wider area.

The 6000 ft. Cobberas, as many will have noticed from a distance, are quite unique amongst the higher peaks of the Dividing Range on account of their rugged appearance. This is so different to most of the higher mountains, including Mt. Pilot just across the N.S.W. border. The Pilot, as it is locally known, is a smooth surfaced mountain composed of sedimentary rock and is in complete contrast to the sharp and abrupt rock stacks that surmount the whole Cobberas range. A continuation of a similar formation is the Rams Horn range to the south, and only separated from the Cobberas by the Playground.

The extreme hardness of this ancient volcanic mass, which geologists classify as rhyodacite, no doubt accounts for the rugged formation. The whole Cobberas range extends from north to south for several miles, including what appears on the maps as Cobberas Nos.1 and 2. The highest point, 6020 ft., is at the southern extremity of Cobberas No.1, whilst the spectacular twin outcrops, often called The Ass's Ears and only slightly less in elevation, lie about two miles to the north. Cobberas No.2 is quite a distance further north still and is separated by a deep pass that cuts across the Dividing Range.

Those on the excursion who reached the summit of the Cobberas ridge were at a point about half-way along Cobberas No.1, though at the time it was not easy to locate our exact position. The abrupt southern end of this mountain consists of mighty ramparts that appear to overhang the Playground Gap 1500 ft. below. The little creek that flows to the east from that point forms one of the headwaters of the Suggan Buggan River, and that flowing westwards is the Playground Creek which soon becomes Native Dog Creek, or Buchan River, on which was our camp some four miles downstream.

When on the Cobberas ridge that day, and looking to the east, there was immediately below us the great rounded hollow that Dr. John Talent, during his geological studies of the area, aptly named The Amphitheatre. The name gives an excellent idea of its shape, although the basin

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is tipped sharply to the east, forming another tributary of the Suggan Buggan River. This is a delightful spot and a botanist's hunting ground surely as remote and secluded as any in the mountains, being completely surrounded by cliffs. It is also a brumby stronghold.

A week or so before the camp, I walked down the length of The Amphitheatre just to see if any rare plant might have been missed there on previous visits. Part of the way down the steep face of the mountain, where a small rivulet was breaking out of the ground, was a clump of attractive white daisies eight to ten inches tall. Many of these in the bud stage were a bright pink, whilst some of the opened flowers were diffused with a pink tinge. These plants had strap shaped leaves, some being entire, and others with spur-like lobes protruding more or less at right angles. With Mr. Bruce Muir, we found a similar daisy, though a smaller edition, right on the mountain top. From a specimen he took to the Herbarium, he has since informed me that this daisy is Brachycome nivalis var. alpina, which is a plant common on Mt. Kosciusko. From the foliage one would never guess that it is a variety of the typical B. nivalis that we recognised as the Snow Daisy of the rock ledges nearby.

At the lower end of The Amphitheatre is a huge castle of rock around which was a mass of Alpine Boronia (B. algida) in flower under a clump of the rare and handsome Hakea lissosperma. Also flowering nearby was a colony of the hill-loving Mint Bush (Prostanthera phyllicifolia) nestled along the sunny side of the cliff, quite an unusually high elevation for that species. Scattered throughout the basin amongst the tall grasses and sedges were numbers of Veined Sun Orchids (Thelymitra venosa).

Ascending again on the northern slope of The Amphitheatre, through a dense growth of Leafy Bossiaea (B. foliosa) and Mountain Shaggy Pea (Oxylobium alpestre), is where, some years ago, I first came across the Alpine Everlasting (Helichrysum hookeri). This attractive little upright shrub, with its minute appressed leaves and numerous heads of creamy-white flowers, does not appear on the other mountains of this area, though quite common at high altitudes of the north-east and on the High Plains.

On the southern escarpments of the main ridge of the Cobberas is to be found, in early summer, a wealth of flowering shrubs that thrive between the great buttresses of rock or adorn the crevices in the cliff faces. Also there in profusion, completely covering the broken masses of tumbled rock over which it sprawls, is a tangled array of Mountain Plum Pine (Podocarpus lawrencii). Capping this scene, on the highest pinnacle of rock are the remains of the old trigonometrical station erected when the N.S.W.-Victoria border was surveyed. In the caverns beneath is the most prolific shelter I know of for the hoards of Bogong Moths that die there after each summer's breeding and which attract hoards of ravens to the feast.

Of the flowering shrubs, there are such showy species as Phebalium phyllicifolium and P. squamulosum var. alpinum (this was until recently P. podocarpoides). Also nearby are one or two places where the

Alpine Star Bush (Asterolasia trymalioides) is to be found. There, too, are fine specimens of Royal Grevillea (G. victoriae), as well as the small-flowered Alpine Grevillea (G. australis). Along the rock faces on the shady side is a grove of the cliff-loving Tea-tree (Leptospermum micro-myrtus) which bears masses of quite large flowers amongst stiff widish leaves. Typical of the mountain tops is the Alpine Mint Bush (Prostanthera cuneata), as well as many lesser plants usually found in such situations. Of these, one of the most attractive is the Snow Aciphyll (Aciphylla glaciialis) with its stiff palmate leaves and showy heads of creamy-white flowers, often rising out of a dense sward of Snow Grass (Poa spp.). Also abundant in the grass is the small pinkish-flowered Alpine Rice Flower (Pimelia alpina). Among other creeping plants are Brown Edelweiss (Ewartia nubigena) and an odd patch of Alpine Ballart (Exocarpus nanus).

To leave the actual summit at the southern end of Cobberas No.1, it is a most rewarding walk to follow the mountain top for nearly a couple of miles or so northwards, past the place that the party reached on the day of the excursion and on to the very spectacular rock outcrops at the northern end of the mountain.

The feature there is not simply a cloven rock, as it appears from a distance, but is in fact a group of gigantic rock masses that are fractured and weathered in a remarkable manner and with a number of caverns in their verticle faces. Also there are fragments of rock resting precariously on top of the most slender pinnacles. One wonders that the terrific gales and blizzards haven't dislodged them.

Between the two highest cliffs, or Ass's Ears, is a delightful little meadow of pure dense snow grass only a few hundred yards in length and perhaps fifty or sixty yards wide. At the foot of the cliff face on one side is a mass of Plum Pine, while at the base of the other is a magnificent display of the handsome Tall Rice Flower (Pimelia ligustrina) and, of course, the usual wealth of daisies that never fail to add charm to such a spot. Like tiny snowdrifts on many a rock ledge are patches of the lovely alpine form of White Purslane (Montia australasica). I have enjoyed a meal at this spot more than once, for it is a place where one instinctively wants to pause and absorb the beauty of such a scene.

Of many mountains explored, the Cobberas are, to me, the most rewarding.

A LIVELY LOG

by H. Christensen

One afternoon (early last December) whilst fishing at the North Arm bridge, Lakes Entrance, I was surprised to see a "log" about 2 ft. by 3 in. floating against the current. It was not long, however, before the log had a head above water and a 3 in. tip of white on its tail visible.

It was a water rat! He dived and surfaced three or four times, staying under different periods each time before going from view. I did not see him catch anything.

I thought water rats lived only in fresh water.

WARRAGUL CLUB NOTES

Warragul member, Mrs. Algie, reports that not only does she feed cheese, dripping, bread, apples, etc. to the birds in her garden, but that she also makes an extra serve of porridge for them.

Specimens brought along to the Warragul Club meeting included the King Fern (Todea barbara), Batwing Fern (Histiopteris incisa), Hard Water Fern (Blechnum procerum), Fishbone Fern (Blechnum nudum), Pouched Coral-Fern (Gleichenia circinnata) and the Silky Fan-Fern (Sticherus tener).

Mr. Brooks also had a number of pressed specimens of ferns, including some small varieties of common ferns. These smaller varieties looked very delicate. Some of the specimens were identified at the meeting.

The Fan-Fern brought along by Mr. Rozynski was the Silky Fan-Fern (Sticherus tener) because the serrations on the edges of the pinnules were obscurely rounded, the formation of the scales were long, tapering, with a few "teeth" at the bottom and, under the microscope, the pinnules were very shortly silky-hairy underneath.

Thanks to Mrs. Nancy Tate, the Thompsons were able to take along to the Warragul meeting the prothallus of a maidenhair fern. Members were very interested in this tiny plant. Mrs. Tate had grown it on a terracotta plant pot.

THE HAZELWOOD ARBORETUM

by Mrs. L. Padfield

Even though July and August are winter months, nature still provides us with some beauty. A winter afternoon visit to the Arboretum was most rewarding.

One of the most spectacular trees was the Cootamundra Wattle (Acacia bailyana). Walking amongst the trees there were noticed in flower Pomaderris eliptica and Banksia ericifolia. Eucalyptus microcarpa was in flower and many other Eucalypts were in bud; one of the more spectacular buds was that of E. caesia with long pink buds hanging in small clusters.

Acacias which will flower soon are A. pravissima or Ovens Wattle and A. longifolia or Sallow Wattle.

There are many other species growing in this area, which was planted originally in 1963, and some later plantings were done by members of the L.V.F.N.C.

A visit to Hazelwood at any time should show something in flower, and this is a good way to identify your native plants.

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING
held at the home of Mr. and Mrs. Thompson on 28/7/70

THE NATURALIST: Mrs. Sterkenburg has offered to assemble and staple the paper. Wrapping will be done by Mr. and Mrs. Branson, also posting as there have been some difficulties regarding postage. The Naturalist should now reach subscribers as soon after printing as possible.

SUPPER: At the last meeting 80 cents was given to help with cost of supper.

SENATE SELECT COMMITTEE: Members are asked to suggest areas for conservation; these will be included in submission being sent by the L.V.F.N.C. If you have any ideas, please let the Secretary know as soon as possible.

TREASURER: Mrs. Eadie has indicated she can no longer carry on in this office. Mrs. Lubcke will take over the position with help from Mrs. L. Padfield.

UNFINANCIAL MEMBERS: It was reported that only 60 per cent of members are financial. As the Post Office Regulations only allow for bulk mail to Club members, you are urged to send your subscription within one month.

Subscription: Single, \$1.50. Family, \$2.00.

Members in arrears will receive notice of this in this issue.

CAR STICKERS: Miss Kemp reported that, of Clubs written to in June, some have responded with further orders for the Car Stickers. Some Clubs, of course, still have stocks left.

GELLIONS RUN: A report from Mr. N. Rossiter, our member from Hedley, expressed his concern at the scheme to produce hydrocarbons from mining in that area. This Club will protest to the S.E.C. and local members of Parliament about this.

SUPPER ROSTER: For meeting on 28th August - Mr. and Mrs. Sterkenburg.

NEXT EXECUTIVE MEETING: 1st September, 1970 at home of Miss J. Galbraith, Tyers, commencing at 7.30 p.m.

LATE NEWS

CONGRATULATIONS!

The Club offers congratulations to Miss Jean Galbraith on being awarded The NATURAL HISTORY MEDALLION for 1970. We think that she is most suitable to receive this award.

More details in next issue.

Latrobe Valley Naturalist

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563

Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

Acting Honorary Editor (Mrs. L. Padfield)
42 Strzelecki Road,
YALLOURN. 3338 Tel. Yallourn 622581

SEPTEMBER, 1970

ISSUE No. 81.



Latrobe Valley Naturalist

Protect and enjoy

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COMING EVENTS

NATURE SHOW Anglesea Hall. October 3rd, 4th.
Organised by Anglesea, Aireys Inlet Australian Society.

WILDFLOWER SHOW F.N.C.V. Lower Melbourne Town Hall.
September 14th, 15th, 16th.

LATROBE VALLEY F.N.C.

Meeting: September 25th.
Speaker: Mr. A. Morrison.
Subject: Wildflowers of Central and Western Australia.
Excursion: September 26th. Longford area. Leader to be Mr. Bealby, an
 officer with the Forests Commission at Heyfield.
Meeting Place: Rosedale railway crossing. Turn right off Princes Highway
 at Rosedale.
Time: 10.30 a.m.

TRARALGON F.N.C.

Meeting: September 18th.
Speaker: Mrs. O. Thompson.
Subject: "Orchids".
Excursion: September 20th. Traralgon South.
Meeting Place: Victory Park, Traralgon.
Time: 1.30 p.m.

WARRAGUL F.N.C.

Meeting: September 18th.
Speaker: Mrs. E. Lyndon.
Subject: ?
Excursion: September 19th. Tonnimbuk.
Meeting Place: Contact Secretary.

Dear Naturalist friends,

I am terribly pleased to be able once more to put pen to paper and be part of our Magazine.

This note will be short - in fact is primarily a very sincere thank you to the Club and members, not only for their interest, but the very sincere and practical help given to me during my recent illness. This help has come from many sources and has been in many forms and has, without doubt, hastened my recovery - and makes me very proud to be part of the Latrobe Valley F.N.C.

I have still a very long way to go and must face many changes. How pleased I am that some years ago I chose to take an interest in natural history; because this interest is now to become a major part of my future life. I have members of this Club to thank for developing this interest.

My thanks would be incomplete if I failed to thank the Editorial Committee, under the leadership of Mrs. Lorna Padfield, who are carrying on with the 'Naturalist' and in such a splendid manner.

Thank you!

Jim Peterson.

And we of the Latrobe Valley Field Naturalist Club are proud to have you as a member, Jim. Ed.

CONGRATULATIONS

One of the Club's past presidents, Mr. K. Eldridge, now residing in Canberra, has been awarded the Degree of Doctor of Philosophy. He is now entitled to be known as Doctor K. Eldridge and we congratulate him on this achievement.

His Thesis was on 'Variation in Mountain Ash on Mt. Erica'. We feel pleased that the subject should be on something which is in our area. It was concluded that high altitude populations of E. regnans are better adapted to survive severe winter conditions.

For anyone interested, a copy of the Thesis is at the A.P.M. Forestry and Timber Bureau Research Station at Traralgon.

ANOTHER LIFE MEMBER

At the meeting of 28th August we were pleased to inform Mr. G.T. Scanlan that he was to be a Life Member of L.V.F.N.C. This is in appreciation for his work in the early stages of 'The Naturalist'.

As we had short notice of Mr. Scanlan's intention to attend the meeting it was impossible to notify members of this before the meeting.

SOME EXHIBITS AT THE MEETING HELD ON 28TH AUGUST, 1970

Miss J. Galbraith. Seven Wattles flowering now:

White Sallow Wattle (A. floribunda). Long narrow leaves. Catkins.
Snowy River Wattle (A. boormanii). Short narrow leaves. Ball flowers.
Buffalo Wattle (A. ketlewelliae). Oblong bluish leaves. Ball flowers.
Early Black Wattle (A. decurrens). Feather leaves. Ball flowers.
Golden Wattle (A. pycnantha). Broad green leaves. Yellow ball flowers.
Blackwood (A. melanoxylon). Broad green leaves. Cream ball flowers.
Varnish Wattle (A. verniciflua). Two-veined olive green leaves. Primrose yellow ball flowers.
Sweet Pittosporum (P. undulatum) showing flowers and fruit together.
Long-leaf Waxflower (Eriostemon myoporoides). Native to Maffra district.
Blue Gum (Euc. globulus) showing buds, flowers and fruit, also mature and juvenile leaves.

Mr. B. Sterkenburg

Corylopsis spicata (not a native) which is related to the Witch-hazel and has delicate yellow flowers in early spring.
Potentilla sp.? Strawberry-like with yellow flowers. Good ground cover plant. Has strawberries but are tasteless.

We were also delighted to see some paintings of native plants done by Mr. Sterkenburg. There were Correa reflexa, Grevillea crosbie morrison and three Orchids (Pterostylis grandiflora, P. longifolia and P. nutans) as well as some others.

These are lovely paintings and we look forward to seeing more some time, Bart.

Mr. G.T. Scanlan

Three species of Mallee which attracted much attention:

The Square-fruit Mallee or Four-winged Mallee (E. tetraptera).

Large-fruit Mallee (E. pyriformis).

Fuschia Gum (E. forrestiana).

Another species, which was brought to the excursion, has been identified as E. woodwardii, a type of Blackbutt.

Members should bring anything of natural history interest to meetings whenever possible, as this is a very important part of our enjoyment of nature.

REPORT ON EXCURSION TO DARLIMURLA ON 29TH AUGUST, 1970by Mrs. L. Padfield

On such a dreary morning some six cars set out for the meeting place at Darlimurla. We met the Forestry Officer from Mirboo North and, over cups of morning tea, had some discussion about the area to be inspected. As many people as could be fitted in then boarded a four-wheel drive vehicle and set off to see the boundaries of the area we would like to have reserved.

The remaining cars and people travelled to an open area near the Pump House to await the others' return. In the meantime we occupied ourselves looking over the area on foot.

Walking along the track many species were identified (full list made by Mrs. Thompson). Most noticeable were Scrambling Coral Fern (Gleichenia microphylla) and the Blackwood (Acacia melanoxylon) which grows so well in this part of the country. Other Wattles in flower were Variable Sallow Wattle (A. mucronata), Silver Wattle (A. dealbata) and Prickly Moses (A. verticillata).

We also saw Manuka, (Leptospermum juniperinum), Banksia spinulosa, and the Silky Hakea (H. tenuifolia); and Privet Mock-olive (Notelaea lingustrina), a rare species here, as well as Bushy Clubmoss (Lycopodium deuterodensum) delighted us all.

Soon the landrover returned and we farewelled the Forestry Officer with many thanks for showing some of us this lovely place.

After lunch beneath threatening skies we again set out - to be met by a hail storm! But it takes a bit more than that to stop field naturalists enjoying themselves. We scrambled through bush to the creek among Tree Ferns, Water Ferns and others back to the road. There are some lovely gullies here which will be worth further exploration. There were visible signs of several species of fauna, and lyre birds could be heard.

Afternoon tea was had at the home of Mr. J. McDonald at Darlimurla. This was much enjoyed by all present and, on behalf of us all, Mr. D. Lyndon moved a vote of thanks which was loudly acclaimed.

DID YOU KNOW?

The Latrobe Valley Field Naturalist Club has been in existence for ten years this year. A lot has been achieved by the Club during this time, and we hope that much more can be done during the second decade in operation.

NATURAL HISTORY MEDALLION AWARD

Members of the Latrobe Valley Field Naturalists' Club will all, I am sure, be pleased to learn of the award of the Natural History Medallion for 1970 to fellow member Miss Jean Galbraith.

The Medallion, which was instituted in 1939 at the instigation of Mr. J.K. Moir of Melbourne, is a recognition of the outstanding contribution to and achievement in the field of natural history by an individual working in that field of endeavour. Only those who know the recipient of the award for 1970, and her extensive, varied and dedicated work over a period of many years, will appreciate how well deserved it is, and it is with a feeling of pride to many of us that we are able to lay claim to an acquaintance and a friendship with her.

Miss Galbraith was nominated, fittingly, by the Latrobe Valley Field Naturalists' Club for the Medallion in 1967, and nomination stands for three years. The nomination was supported this year by Peninsula Field Naturalist Club, Native Plants Preservation Society and the Botany Group of the Field Naturalist Club of Victoria.

A dossier was compiled (with some assistance by members and from other sources) by L.V.F.N.C. President, Mr. Ern Homann. It is an impressive document, and one is compelled to wonder how an individual can, as Miss Galbraith managed to do and still does, fit so much into 24 hours a day, and seven days a week, etc.

Many nominations of very worthy people are made to the Field Naturalist Club of Victoria for consideration of the award each year, and it is a matter of great difficulty, as can be imagined, for a choice to be made.

It should be stated that nominations are made in respect of workers in the field of natural history from all over Australia, that it is an Australia-wide award and that the F.N.C.V. acts as the administering body on behalf of organisations and societies making the nominations.

The Medallion itself, the outward and visible sign of the award, is made of bronze with an aboriginal motif design.

In the 30 years of making the award, it has been thought fit to honour only four women, Miss Galbraith being the fourth. It is a further source of pride to be among the minority of female award winners.

Sincere congratulations, from the 'Naturalist' on behalf of all the members of the L.V.F.N.C., to Miss Galbraith.

NELSON BAY, N.S.W.by Mr. E. Homann

Some ten miles north of Newcastle, the Hunter River enters the Pacific Ocean. The Pacific Highway crosses the Hunter at Hexham, and before very long a road bears eastward past the RAAF base at Williamstown and in 30 miles reaches the heads of Port Stephens. This peninsula has Port Stephens to the north and the bight at the mouth of the Hunter to the south. Most of the area is sandy, the sand being deposited in geological time by the waters of the Hunter. Headlands and the few hills are of volcanic origin, the rocks being trachyte.

As with most sands, there is a varied heath-land with bigger timber on the volcanic slopes - Blackbutt (Eucalyptus pilularis) and Swamp Mahogany (E. robusta). The understory consists of Banksias, Persoonias, Hakeas, Melaleucas and assorted genera of Leguminosae. In the thriving holiday town of Nelson Bay it is the thing to do to plant Christmas Bush (Ceratopetalum gummiferum), originally native to the area and which has been planted extensively; and judging by the size of the bushes and by the way they were thriving they would be a picture at Christmas.

I attended the annual meeting of the local Conservation Society and felt right at home as they gave an account of their efforts to have reservations made. Port Stephens is a very large sheet of water, well sheltered, with deep channels and fairly close to Newcastle. A feasibility study is being done as to the possibility of bringing large bulk ore carriers into the area to supply the furnaces of Newcastle. The Conservation Society will fight this and will have the backing of most of the local residents, but not the business people nor the Council. It sounds familiar.

Not far from Nelson Bay there was an area of some 100 acres of undulating land. This had been burnt two years ago and now the Spear Lilies (Doryanthes species) were coming into full bloom. Their tufts of broad-bladed long leaves almost overlapped and their straight flower stems were showing the first crimson buds. It was like an army of lances in the bush, the lances being 10 to 15 ft. high and topped, as it were, by a pennant of green and scarlet buds. I have never seen so many, and we shall call in there again on our way back to see them in all their glory.

Members will be pleased to know that Mr. Homann will be back by next general meeting of L.V.F.N.C. Ed.

FRANK JONES - BIRD LOVER

Members have been saddened by the death of our vice-president, friend, and companion of many outings, Frank Jones. He had not been well for some time, but until a few months ago he rarely missed a meeting or a committee meeting, and we could always depend on his support for all worth-while projects, his quiet humour and his helpful courtesy.

We all respected his great knowledge of birds, his unrivalled bushcraft, and the beauty of his bird photographs which were shared with us and other Gippsland clubs when he was our speaker, but above all he was our greatly valued friend.

He was so much a part of the Club that few words are needed here, but we are glad to remember how much his life in the bush meant to him, and the happiness he had over many years in the companionship of birds.

Two early articles of his in the 'Naturalist', Avian Camp-followers of Boola (July, 1968) and More on Bird-banding, give some delightful glimpses of this.

Our best memorial to him will be to carry on his influence in encouraging love of birds and protection of their habitat. Members who wish to pay personal tribute to him are contributing to the appeal to finance the Yellingbo reserve for Helmeted Honeyeaters, making their gifts a memorial to him. This is appropriate for he was deeply interested in the project.

Beside belonging to our Club, and the Bird Observers Club, and working with the Ornithological Research Group in bird-banding, he was a member of the Australian Photographic Society and a while ago received their Certificate of Merit for his slide of the Rufous Fantail.

His work with the Victorian Ornithological Research Group entailed not only the banding of birds but the keeping of detailed records both of banding and of nests. In an article written five years ago he mentioned having banded 1,000 birds of 43 species during the preceding 7 months; so his records, which would be passed on to C.S.I.R.O. by the Research Group over a number of years, should be of great value. We are glad that at least one other of our members has carried on the work of nest recording for some years and will be able to do so in future.

As one member said, "One who chooses Frank's life should not live to be old." Now he need never face a life away from his loved birds.

We have now learned that some part of the Yellingbo project will be kept as a memorial to him, though as yet we have no details.

NOTES FROM A BIRD WATCHER'S DIARYby Mrs. Joy Johnstone28th Jan.

This year the Sacred Kingfishers which nest near the Sandbank Reserve between Tyers and Traralgon have a tunnel in the river bank instead of one in a tree. Wonder if this is an attempt to foil the Starlings?

I did not find their 1966/67 nest, but in December 1967 saw them taking food into a very small hole at about 20 metres up in the trunk of a dead tree. The last day of the following October the Kingfishers were laboriously drilling a new hole a little higher up in the same tree while Starlings used their other one! Each Kingfisher took it in turn to fly directly at the tree trunk from about 1.5 metres away, resting for a minute or so after each attack.

This season's nest is some distance from the others, downstream from the bridge and across river from the lagoon at which the birds catch most of their food. Entrance of the tunnel is 33 cm. below the top of the bank and same distance into the bank. Egg shells on the ground below, and quantity of whitewash down the bank, indicate three or four young two to three weeks old.

31st Jan.

Kingfishers still feeding young in the nest. Food seen - small frogs and one dragonfly.

4th Feb.

Watched nest for 20 minutes without seeing adults, so checked nest and was delighted to see the head and neck of one youngster crouching inside. It looks ready to fly. Awaiting its turn?

11th Feb.

Nest empty and a cobweb built over one of the two little ruts worn by the birds' feet at the entrance. Wing and head casings of gorgeous stag beetles noted in the excreta. Over the lagoon I heard calls and saw an adult feed one young bird perched inconspicuously in a Manna Gum tree. In Swamp Paperbarks farther round the lagoon another youngster was being fed by the other adult. There may have been another in this area, but in 1½ hours I could see no more than four birds at once.

NESTING PLOVERby Mr. Tom Moretti

In the last week of June I noticed a pair of Spurwing Plovers acting suspiciously; I thought it was early but it was worth an investigation. On searching around, I found one egg in a rabbit's scratch, but looking further I found another three eggs in a drier spot and in a roughly made nest. After a period of three days a fourth egg was laid. Now the question is, was there trouble over territorial rights, or was the first egg in water when it rained and deserted for the drier position, as the spots would be eight feet apart.

The bird was shy at first and would promptly leave the nest on any approach; but, as time went on, she would sit tight while tractors drove by provided the colour was red or yellow; a green truck and she was gone.

On warm or sunny days the birds would be quite handy; but on a cold wet day she would sit very close and make all the unwelcome noise she could, but leave the nest only as a last resort.

After twenty-one days, there was no little plover, so I started to think "now what's wrong". After another seven days things just happened; two little plovers and two eggs; on the twenty-eighth day, another little one and one egg. Then Mum deserted the lone egg.

The little ones were quaint little beings with horizontal stripes, buff and black; the only thing to give them away was a little black eye staring straight at me. The parents promptly took them into a grass paddock where they should be alright.

ANOTHER BIRD NOTEby Mrs. Ellen Lyndon

A small bird burst suddenly from a roadside thicket right across the path of the speeding car. There was no chance of avoiding it. The bump was audible.

We reversed back to the small bundle of feathers, distressed to find it was a White-eared Honeyeater. It lay limp and apparently dead, with open bill and lolling tongue. There were no marks on it. "It will make a specimen for the Museum" we said, as we picked it up.

In the warmth of a hand held under a coat, the bird stirred and sharp claws gripped a finger. By the time we reached home it appeared fully conscious and flew to a perch in a darkened room.

We investigated very doubtfully next morning, quite prepared to find the bird dead from shock. But all was well and White-ears flew out to the nearest tree and began drinking the raindrops hanging from the leaves.

We wonder if this honeyeater will find its way back toward Inverloch or take up a new life in our park where there is already one resident of its kind that splashes regularly in our bird bath. What a pity we could not band our casualty for future reference.

LIST OF PLANTS FROM MISS GALBRAITH'S TALK - 26/6/70

The following is the list of Miss Galbraith's slides. All are suitable for Gippsland gardens, but Miss Galbraith pointed out that some of the most suitable plants had to be omitted because she did not have slides of them.

WIND BREAK TREES

Acacia decurrens	Early Black Wattle
Tristania conferta	Kanooka
Brachychiton populneum	Kurrajong
Eugenia australis	Brush Cherry
Nothofagus cunninghamii	Myrtle Beech

CLIMBERS

Kennedya rubicunda	Dusty Coral Pea
" nigricans	Black " "
Hardenbergia violacea	Purple " "
Hibbertia scandens	Guinea-flower

SHRUBS Tall to medium for sunny positions.

Callistemon rigidus	Stiff Bottlebrush
" citrinus	Crimson "
Grevillea punicea	
" lavandulacea	Lavender Grevillea
" linearifolia	
Acacia pravissima	Wattle - medium shrub
" decora	" - tall "
" retinodes	
Hakea sericea	Silky Hakea
" purpurea	Red "
" bucculenta	Scarlet "
Calytrix tetragona	Fringe Myrtle. (Attractive all the year round as foliage and calyx are also very attractive.)
Chamaelaucium uncinatum	Geraldton Wax Plant. (Plenty of sunshine and no wind.)

SHADE LOVING PLANTS Tall to medium.

Forest shrubs grow where light is never strong, therefore leaves are broader. The next four plants have beautiful berries but insignificant flowers.

Tieghemopanax sambucifolius	Elderberry Panax
Coprosma hirtilla	Coffee Berry
Gaultheria hispida	Rough Waxberry
Podocarpus lawrencei	Mountain Plum Pine
Goodia latifolia	Golden Tip
Anopterus glandulosus	Tasmanian Laurel
Boronia muellerii	Pink Boronia

To be continued in next issue.

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING
held at the home of Miss J. Galbraith on 1/9/70

CAR STICKERS

The new car stickers with Club names printed on are now ready for distribution to the Clubs concerned. A letter will be sent to new Clubs asking for support in this project.

FRANK JONES

It has been decided to have a book memorial in the Club library, and 'Australian Honeyeaters' is suggested if it can be obtained. Members may subscribe to the Yellingbo project if they wish; Miss Galbraith will accept contributions for this.

DARLIMURLA

As a result of the excursion and talks with the Forestry Officer, it was decided to apply for an area of approximately 250 acres as a reserve. Further details are being obtained so that our application may be sent.

AUSTRALIA DAY, 1971

Bairnsdale Field Naturalist Club will be holding a Campout at Mt. Howitt at this time. An invitation is extended to members of Latrobe Valley F.N.C. to join one of our sister Clubs. Please keep this date in mind.

FLORA OF EAST GIPPSLAND

Copies of this booklet can be obtained from Bairnsdale F.N.C. Price, 40c.

SUBSCRIPTIONS

Several members seemed unaware that subscriptions are due on 1st MARCH each year.

Single member, \$1.50. Family membership, \$2.00.

L.V.F.N.C. CAMPOUT

The weekend of 17th, 18th October has been decided as most suitable to camp at Briagalong on the Freestone Creek. Mr. W. Cane of Maffra will be the leader for this excursion. Members may come for the day only if they wish. There are many species of native plants in this area.

NEXT EXECUTIVE MEETING

29th September at the home of Mr. and Mrs. McElroy, 35 Latrobe Rd., Morwell.

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

RAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563


Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

Acting Honorary Editor (Mrs. L. Padfield)
42 Strzelecki Road,
YALLOURN. 3338 Tel. Yallourn 622581

OCTOBER, 1970

ISSUE No. 82.



Latrobe Valley Naturalist

Protect and enjoy

10c.

COMING EVENTS

NATIVE PLANTS PRESERVATION SOCIETY

Excursion: 7th November - Labertouche area.

Meeting Place: Princes Highway turnoff.

Time: 11 a.m.

An invitation is extended to all Field Naturalists interested to join the excursion.

LATROBE VALLEY FIELD NATURALISTS' CLUB

Meeting: October 23rd.

Speaker: Mr. John Landy.

Subject: Butterflies.

Excursion: October 25th (Sunday). Stony Creek area. Subject - Birds.

Meeting Place: The Oasis, Toongabbie.

Time: 11.00 a.m.

Briagalong Campout - October 17th, 18th. Freestone Creek.

Leader: Mr. W. Cane.

Meeting Place: Briagalong Post Office.

Time: 10 a.m.

WARRAGUL FIELD NATURALISTS' CLUB

Meeting: October 16th.

Speakers: Mr. and Mrs. Anderson.

Subject: Their Queensland and New Guinea trip.

Excursion: To be announced at the meeting.

A microscope will be available at the meeting for the use of members.

ABOUT CLUB MEMBERS

WELCOME HOME to Club President, Mr. E. Homann, who with his wife has been touring N.S.W.

VISITORS TO MORWELL: Mr. and Mrs. E. Feisst and family from Warrnambool. Some of the Club members will remember Mr. Feisst as an earlier President and his wife as an even earlier Secretary (the first, in fact). The people who were visited by them were most pleased to see them.

MT. BEAUTY VISITORS: Mr. and Mrs. J. Jakobson of Mt. Beauty, but lately of Yallourn, were also visiting the Latrobe Valley. Mrs. Jakobson has many friends here.

RETURNED FROM HOLIDAYS: Mr. and Mrs. E. Lubcke have been enjoying the beauty of the West Australian wildflowers.

A WELL EARNED REST is being had by Mrs. L. Padfield, but not before details for this issue are in hand.

WILDFLOWERS OF NORTH-WESTERN AUSTRALIA

Address by Mr. A. Morrison on 25th September, 1970

From Mrs. Bon Thompson

Mr. Morrison gave a very interesting talk and showed some beautiful slides of North-Western Australia. The trip started at Alice Springs, then through to Darwin, west to the Kimberleys, south-west to the Hammersleys and Marble Bar and then down to Geraldton.

The slides were in sequence as taken on the trip and commenced with a sunrise and then the amazing colours of the Gibber Plains. The flowers here included Frankenia, Euphorbia, Eremophila and Salt Bushes. There was a delightful slide of ladies feeding the wild donkeys, and then the granite rocks known as Devil's Marbles.

Next stop was Elsey Station of the book "We of the Never Never"; also a hot spring and a warm pool with an average temperature of 80° all the year round. This pool had much plant growth around it, including water-lilies. Mr. Morrison had photographed an orb spider in all its beauty. The white trunks of the Eucalypts were outstanding and the bright colours of their flowers included orange, red and the yellow of the unnamed Eucalypt that Miss Rossiter found. The spectacular buds of this tree are exactly like babies' dummies and it has been nicknamed the Dummy Gum until it has a proper name. The scenes in the whole of this section of Australia are very beautiful; some of the colours are almost unbelievable, especially the red of the sand.

Next stop, Victoria River, with its palms and aboriginal cave paintings with one life-size painting of a man in a prostrate position. The native Kapok plant has nuts containing white cottony substance that is used to decorate the aborigines when painted for a corroboree. There were colourful Grevilleas and Hakeas in all the areas visited. Termite mounds were common but of several different constructions. After the Ord River area there was a series of slides on the green ants that build their nests in trees. They use their bodies to pull the leaves into position and the secretion of the larva to glue the leaves together to form the nest.

Scenes of the Kimberleys and Wyndham followed. Terminalia trees and Calytrix bushes 15 ft. high, and an Acacia with chocolate-red flowers, were some of the unusual plants around this area. Hall's Creek was visited and the surrounding area with its flat-topped ridges; then the Fitzroy River and Geikie Gorge with its wonderful structures caused by erosion. The jail tree at Derby, the Baobab or Bottle Tree, its beautiful yellow flowers and large nuts like footballs, were photographed.

Broome was the next stop, showing the rocks, fossil remains in rocks, the Japanese cemetery and the beautiful flowers that line the road from Broome. Here were the very bright red flowers of a small creeper, Calandrinia, and the spindly flower of the Capparis plant.

Then on to the Turner River and the Hammersley Ranges with more red sand and again the white trunks of the gums standing out. Sturt's Desert Pea was in great profusion. The colours in the rocks at Marble Bar are very brilliant, and the stone is not marble but jasper. Water scenes at the mouth of the Murchison River followed, and then some more spectacular flowers - the yellow Ray Flower, the beautiful blue Stemodia, more Grevilleas, brilliantly coloured Pussy Tails, Golden Everlasting, pink Schoenia, striking red of the Darwinia, two Melaleucas (a yellowish green one and a prune coloured one), the blue and white of Caladenia gemmata, a bright red Hakea, a woolly Darwinia, a yellow Dryandra and a beautiful Banksia. The final two slides were a spectacular Grevillea and the scarlet Verticordia or Feather Flower in a mass.

As will be seen by the above description, we were really treated to a feast of expert photography and beautiful flowers. The evening ended all too soon.

SPECIMEN TABLE: Many specimens were brought along to the meeting. Members showed great interest in these exhibits.

Mrs. McElroy brought along some beautiful shells collected on her recent trip to South Australia.

Master Ronald Lambert brought along his lovely moss garden for us all to enjoy.

Mr. Graham displayed a collection of Spring flowers including: a Grevillea, Candles (Stackhousia monogyna), Common Heath (Epacris impressa), Nodding Greenhood (Pterostylis nutans), Purple Coral Pea (Hardenbergia violacea),

Showy Bossiaea (Bossiaea cinerea), Golden Bush Pea (Pultenaea gunnii), Toothed Boronia (Boronia anemonifolia) and Pink-bells (Tetratheca pilosa).

A collection of orchids was shown by Miss Galbraith. These had been sent from Woodside and included six Greenhoods - Pterostylis barbata, alpina, concinna, nana, pedunculata and longifolia. The other flowers were Waxlip (Glossodia major), Pink Fingers (Caladenia carnea), Mayfly Orchid (Acianthus caudatus), a white variety of Tetratheca ericifolia and the lilac form of Tetratheca pilosa.

Mr. Sterkenburg brought along the fruit of the Cluster-flower Geebung (Persoonia confertiflora), the Rough Mint-bush (Prostanthera denticulata) in its usual form, Austral Bugle (Ajuga australis) and the buds of the Tasman Flax-lily (Dianella tasmanica).

Miss Rossiter brought along the dried specimens of the unnamed Eucalypt from Western Australia, nicknamed Dummy Gum because of the shape of the buds.

I apologise to anyone whose specimens I did not record.

REPORT ON EXCURSION TO LONGFORD AREA ON 26TH SEPTEMBER, 1970

by Mrs. Bon Thompson

The weather was pleasant and the day enjoyable. Mr. Bealby was very disappointed for, when we reached the area where the orchids were, all the pines had been cleared and, of course, the ground very disturbed, so we were unable to find the orchids. Nevertheless, not at all daunted, we proceeded to investigate an area opposite and found many lovely mauve Waxlip Orchids (Glossodia major). There was also quite a "thicket" of Nodding Greenhoods (Pterostylis nutans). We even found a seed pod on a Helmet Orchid (Corybas sp.) - not a very common find. Right on the side of the road was a tiny Stonecrop (Crassula sp.) which I am sure everyone would have missed if Miss Galbraith had not been with us. It was only about $\frac{1}{2}$ " across the whole plant.

The lovely red pea of the Running Postman (Kennedya prostrata) popped out from amongst the grass here and there. The tiny yellow male and female flowers of Thyme Spurge (Phyllanthus hirtellus) were open and also the flowers of a small Rice-flower (Pimelea hewardiana). The Early Nancy plants (Anguillaria dioica) in this area had lovely purple colours on the backs of the petals, so that in bud they looked similar to Pink-bells (Tetratheca pilosa) which were also flowering here. Purple Coral Pea (Hardenbergia violacea) was twining up the bushes, while the Wild Violets (Viola hederacea) were shyly flowering underneath. Everywhere the sun was catching the leaves of the Sundew (Drosera peltata) with its hairy calyx, although only a couple of flowers were fully open. Showy Bossiaea (B. cineria) and Buttercups added a touch of yellow. Three Wattles were also blooming - Lightwood (Acacia implexa), Blackwood (A. melanoxylon) and the Spreading Wattle (A. diffusa). Here also a Liverwort with a tiny brown fruiting capsule was growing.

We then moved on to another area amongst the pines and found the lovely blooms of Pink Beard Heath (Leucopogon ericoides), the delicate cups of

Honey Pots (Acrotriche serrulata), a few flowers on the Golden Grevillea (G. chrysophaea), the Swamp Gum (Eucalyptus ovata) in bloom, and even the Kidneyweed (Dichondra repens) had flowers. Some members found the tiny Scarlet Sundew (Drosera glanduligera), about the size of the Pigmy Sundew but not so red in leaf, and with about four flowers on the stem but still only $\frac{1}{2}$ " to 1" high.

In a damp area some of the men found the Alpine Greenhood (Pterostylis alpina) and the Mosquito Orchid (Acianthus reniformis) in flower. Glycine and Love Creeper (Comesperma volubile) were twining amongst the bushes and the Rough Treefern, Scrambling Coral Fern, Fishbone Fern and Maidenhair Fern were surviving.

We then moved on towards Chessum Road and passed many plants of the rare variety of the Rough Mint-bush (Prostanthera denticulata), all flowering. We just had to stop.

On again to our lunching spot. Here more Mint-bushes, Toothed Boronia (B. anemonifolia) with its lovely red and pink blooms, the Twiggy Guinea-flower (Hibbertia virgata) covered with large yellow flowers, and a few bushes of Correa (C. reflexa) with large red bells. While we ate, the mosquitoes were also busy. After lunch Mr. Sterkenburg showed us his paintings, much to everyone's delight.

It was decided to continue on to the Dutson Road area. Here there was a paddock that had been cleared about two years ago and now is covered with Toothed Boronia, Slender Rice-flower (Pimelea linifolia), Wedding Bush (Ricinocarpos pinifolius), Showy Bossiaea, Common Aotus (A. villosa), Pink Beard Heath and Spike Wattle (Acacia oxycedrus). It was just like a botanical garden. These same plants grew along the side of the road, where members could photograph them. One plant of the Common Spider Orchid (Caladenia patersonii), which incidently is no longer common, was in full glory and much photographed. The Eucalypt in this area is E. nitans, which was once thought to grow only in Tasmania but has since been found in several places along the Victorian coast. Amongst such beauty the cameras clicked merrily, although I feel the range of a camera is too limited to do the whole scene justice.

Mr. O. Thompson, on behalf of the many members and visitors present, thanked Mr. Bealby for a very enjoyable day.

THE SNOW GUMS OF HAZELWOOD

by Mrs. L. Padfield

Along the Midland Highway, almost opposite the Hazelwood Arboretum, some Snow Gums will be seen - Eucalyptus pauciflora. The trees are growing naturally there at such a low altitude, 1100 ft. A.S.L. Mr. K. Eldridge obtained seeds from these trees and raised seedlings which were later planted in a small area beside the pondage. The trees are now growing well at between 6-10 ft. high in the area, which is almost an extension of the Arboretum.

MR. GEORGE SCANLAN

Many months ago our Club moved a very popular and unanimous motion offering Honorary Life Membership to our ex-editor, Mr. George Scanlan. George was forced to relinquish the position of editor of the "Latrobe Valley Naturalist" due to a change in his work which took him to many places in Victoria - never very long in one place and under conditions which made editing a magazine virtually impossible.

It was George who started the "Latrobe Valley Naturalist" - then known as the "Newsletter" - in October 1963. The first issue was of foolscap size and of a modest two pages. The following month Issue No.2 was published - three and a half pages - and before many months was averaging 5 to 6 pages. This was not done without a lot of unseen work on George's behalf, coaxing members to write articles (a number of our current contributors whom we take for granted were beginners in those days and needed quite a lot of persuasion). The articles were checked by George, stencils typed, sheets duplicated and then came the assembly and delivery - all except the latter being done by the editor. Delivery in those days was by hand.

It soon became clear that the magazine was there to stay, members eagerly waiting for its monthly appearance. Still not a straight-forward matter, as there was always a shortage of material. Members were coaxed and at times the gap had to be filled by George himself.

All the time George was trying to improve the set-up of the magazine. Issue No.18 of May 1965 saw the size reduced to quarto (its present size) but with the number of pages increased to 8 or 10 depending upon the material available.

Issue No.26 of January 1966 saw the first special front cover, using the Flying Duck club emblem so capably designed by Mrs. Jakobson. In August 1966 (Issue No.33) we first availed ourselves of the cheap bulk postage rates which allowed us to post the magazines direct to members irrespective of where they were living.

Issue No.43 of July 1967 saw the change of name of the magazine to its present "Latrobe Valley Naturalist", together with the use of a stiffer printed front cover similar to that which we now have.

And so on until Issue No.62 of February 1969 when George was forced to retire - 5½ years' work comprising 500 pages and some 350,000 words for our Club.

Members have waited patiently for the opportunity to have George at home and be present at a meeting to allow us to bestow upon him a small reward for the tremendous work he has done for our Club, for truly the "Latrobe Valley Naturalist" is the backbone of our Club.

We thank you, George.

Jim Peterson.

BRUXNER PARK, COFFS HARBOURby Mr. E. Homann

The coastal range is very near the sea at Coffs Harbour. It is very steep and rugged and its red volcanic soil grows more bananas than anywhere in Australia. Turning off the Pacific Highway $2\frac{1}{2}$ miles north of Coffs Harbour a bitumen road runs for 3 miles through banana plantations, climbing the whole distance. The banana growers use large plastic bags coloured blue to cover the developing branches. This is to protect them from insects and birds - currawongs - and to encourage the early development of the branches.

Reaching a ridge one finds oneself in State Forest, part of which has been set aside as Bruxner Park. The Lions Club has developed an area as a lookout, which was visited by the Queen and which offers a panoramic view of the coastline and the banana plantations.

On the ridges in the State Forest grow mainly Eucalypts - Grey Ironbark (E. siderophloia), Flooded Gum (E. grandis) and Tallow-wood (E. microcorys) - while in the lower slopes and gullies occurs rain forest. Following the nature trail epiphytic ferns appear on the trees, Elkhorn (Platycerium bifurcatum) and Birds Nest Fern (Asplenium nidus) and many others, while along the track grows a Fan Fern (Sticherus lobatus). Many slender trunks of the Prickly Tree Fern (Cyathea leichardiana) are seen, reminding one that this fern has a range from Victoria to Queensland. Picturesque groves of the graceful Bangalow Palm (Archontopoenix cunninghamiana) are plentiful, while a member of the lily family (Cordyline terminalis) which is often cultivated, particularly in glasshouses in southern latitudes, was numerous. This latter has a single cylindrical stem at the top of which is a group of leaves like those of an aspidistra. Lilly-pilly (Acmena smithii) was there, as was Forest Oak (Casuarina torulosa), and Lawyer Cane (Calamus meulleri) which is a climbing palm thickly beset with backward pointing spines - a trap for the unwary. Huge Brush Boxes (Tristania conferta) dominate the jungle, many of them infested with the Strangler Fig (Ficus watkiniana). A bird drops a fig seed high in a fork of a Brush Box; this seed germinates and sends a slender root to the ground far below, and this root thickens and branches until the host tree is enclosed in a lattice of roots. The parent tree is killed, for the fig deprives it of water, nourishment and light.

A forest of Coachwood (Ceratopetalum apetalum), a relative of the N.S.W. Christmas Bush (C. guniferum), occurs on the border of the jungle and the more open Eucalypt forest. This is a very valuable timber tree, used in plywood, cabinet work and furniture. In all, 25 species are numbered on the nature trail and I am indebted to the brochure, which is issued as a key to this, for most of the botanical names.

"There can be no greater morality in the field of ecology than to ease out the living space and replace dereliction by beauty."

Dr. Fraser Darling in Reith Lectures. (Quoted from memory - J.G.)

NOTES ON THE "WANDERER" BUTTERFLY (*Danaida plexippus*) (Linnaeus 1764)
by Mr. C.G.L. Gooding

In Gippsland, the autumn of 1970 will always be remembered as the "Wanderer" year - these magnificent butterflies were everywhere. I had received reports of their presence from most districts and had innumerable larva and pupa sent and brought to me by a large circle of friends and enthusiasts. From these larva and pupa I bred scores of lovely perfect butterflies, regal and magnificent insects, which are fascinating to watch on their first flight into space.

Danaida plexippus, the "Wanderer", is not a common butterfly in Gippsland; indeed up until recent years we only had stragglers to visit us, nearly always in the early summer. Having arrived in Gippsland the "Wanderers" soon found the area very favourable for them and decided to spend their life cycle with us, much to the enjoyment of innumerable naturalists everywhere.

The larva of Danaida plexippus is a very pretty caterpillar, banded alternately with black and yellow, and feeding on a number of weeds (both native and introduced), such plants as milk thistle, Kapok Creeper, Swan Plant, and many more which possess a white sticky sap.

The pupa is indeed a magnificent object, being pale green in colour, banded, and ornamented with gold. It is suspended by the cremaster, and in warm weather the butterflies will emerge in about a fortnight, the pupa turning black 24 hours before emergence, at this stage the pattern of the wings being seen easily through the thin transparent shell of the pupa.

These lovely butterflies always possess a pungent odour. This is derived from the strong smelling plants which the larva eat, both larva and pupa possessing the same odour. This pungent odour makes these fine butterflies distasteful to birds of prey, giving the butterfly a large degree of protection, which is reflected in the unhurried and fearless manner in which the butterfly moves about.

In America, where the butterfly is known as the "Monarch", it has a "mimic" possessing the same colour as the "Monarch", not quite as large but of a very similar pattern. It mimics the "Monarch" in order to obtain for itself the same degree of protection from birds of prey. It is called Limenitis archippus, the "Viceroy".

In Australia we have six species of Danaida butterflies, none of them as large as the "Wanderer" and two species being very rare. All of them are most interesting, their larva and pupa being very beautiful objects.

Much has been said and written on how the "Wanderer" reached Australia. I have often heard people tell their children that it "flew all the way over the Pacific Ocean under its own power". What nonsense all this is! It reached Australia about 1873 and was first noticed on the coast of Queensland about that time, although it was recorded from several Pacific islands much earlier. I think it is reasonable to assume that the "Wanderer" took 200 or

250 years to cross the Pacific, and only then from island to island, its survival depending on luck to find a suitable food plant for its larva. Countless millions of butterflies must have perished throughout past decades while searching the vast oceans for a landfall. It must be remembered that, as the white man spread, so did weeds of all kinds spread in his wake, making conditions suitable for the "Wanderer" to push his frontiers out and increase his range.

The "Wanderer" butterfly has passed under several names in Australia, but as scientists have decided in favour of Danaida plexippus (Linnaeus 1764) we, of course, must keep that name.

Sometimes "Wanderer" butterflies "peg a claim" to a locality or particular area for a considerable time, and I well remember many years ago seeing the same "Wanderer" in the same area for five or six weeks. This habit has also been noted by me with other Australian butterflies.

Our Australian "Wanderers" are gradually developing a little difference from their American ancestors, ours being much more heavily spotted with white all along the outer black margins. This heavier white spotting makes our Australian "Wanderers" look extremely attractive. The difference can be noticed at once by comparing ours with the American specimens.

In America "Monarchs", as they are called there, have been noticed to congregate in huge masses and to settle on trees in countless thousands. Something like this phenomenon has been noticed with our Australian "Wanderers" in the Hunter River Valley of N.S.W. and Mt. Lofty in S.A.

To see two or three "Wanderers" flying together, turning and twisting as if in a dance, is really "poetry in motion" and often, while watching them at different times throughout the years, I have recalled these lovely lines:

What more felicitie can fall to creature
Than to enjoy delight with libertie,
And to be Lord of all the works of Nature.

I trust my readers will find these notes on Danaida plexippus, and its travels over vast ocean waters and colonisation of scores of islands, interesting.

"The greatest need is for an alert intelligent conservation group in every community!" Each group shall question every project that will radically alter vegetative conditions. Much needless damage may be averted if those who promote 'developments' are forced to give consideration to all the probable results before the work is undertaken and to render an account before the bar of public opinion. Vigilance in these respects will always be necessary."

LIST OF PLANTS FROM MISS GALBRAITH'S TALK - 26/6/70 (CONTINUED)

SHRUBS FOR AVERAGE SOIL AND SOME SHELTER

Pomaderris pilifera	Striped Pomaderris
" elliptica	Oval-leafed Pomaderris
Phebalium dentatum	
Backhousia citriodora	Lemon Scented Backhousia. Flowers and calyx distinctive.
Isopogon latifolius or formosus	
Telopea truncata	Tasmanian Waratah
Banksia canei	Prickly Banksia. Open position.
Thomasia petalocalyx	Paper Flower. Semi shade.
Prostanthera ovalifolia	Oval-leaf Mint Bush. Sunny position.
Swainsona greyana	
Kreysigia multiflora	Lilac Lily
Burtonia conferta or scabra	Purple flowers
Chorizema cordata	Scarlet flowers
Pimelea ferruginea	Rose-pink Riceflower

DWARF SHRUBS

Acacia pulchella	Prickly Wattle
Epacris longiflora	Fuchsia Heath
Correa reflexa	Red Correa
Melaleuca thymifolia	Thyme Teatree
Gompholobium huegolinii	Karralla

GROUND COVER

Disphyma australe	Rounded Noon-flower
Viola hederacea	Wild Violet
Helichrysium apiculatum	Common Everlasting
Dampiera cuneata	

LILIES & IRISES Herbaceous. Like peaty soil.

Stypandra caespitosa	Tufted Blue-lily
" glauca	Nodding " "
Diplarrena moraea	Butterfly Flag
Orthrosanthus multiflorus	Morning Flag
Crinum brisbanicum	Darling Lilly

FOR AN ANNUAL

Helipterum roseum	Pink Everlasting
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To be completed in next issue.

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING
held at the home of Mr. and Mrs. McElroy on 29/9/70

FRANK JONES

Book Memorial - "Australian Honeyeaters": As this book is now out of print, Mr. Tom Moretti presented his copy to the Club at the Executive Meeting, and it will be suitably inscribed. Our thanks to Mr. Moretti for his generous gesture.

EXCURSIONS, ETC.

Details of these have been reported in the COMING EVENTS section.

NEXT EXECUTIVE MEETING

27th October at the home of Mr. and Mrs. Lubcke, Cnr. Catherine and Helen Streets, Morwell.

DON'T POKE YOUR TONGUE OUT AT ME !!

by Mr. Bart Sterkenburg

A few weeks ago I was making a sketch of the Tall Greenhood. Accidentally I touched with my pencil one of the little red tongues, and flip!...the tongue flipped up. If my pencil had been a little insect, it would have been trapped inside the flower. The quick movement of the tongue intrigued me, so I tried out the other flowers on the same stem. They all reacted well except the top ones, which were probably not mature enough for this experiment.

It made me wonder when the flower would be ready for the next show. Within an hour they had poked their little tongues out at me again. I was interested to know if I could make the plant tired of this action, so every time the tongues were out I touched them again. It happened at least ten times that day - the Greenhood was not, but I was tired!...the plant had tried me out.

The tongues flick upwards, the opposite direction to the Trigger Plant whose hammer knocks down. My question is now "what makes the tongues go up and what happens between 'up' and 'down' again"?

When we set a mouse trap our energy sets the spring and it is the mouse that releases the spring. Actually, our energy is extended via the spring to the mouse (did you realise that you are actually hitting the mouse?). But what power is used to 'set' the tongue to flick up not once but many times a day?

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563

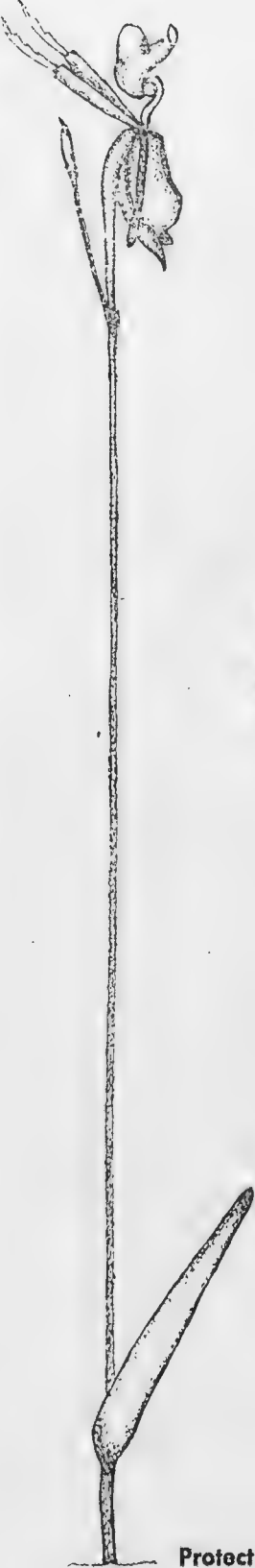
Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

Acting Honorary Editor (Mrs. L. Padfield)
42 Strzelecki Road,
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NOVEMBER, 1970

ISSUE No. 83.



Lalrobe Valley Naturalist

Protect and enjoy

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COMING EVENTS

LATROBE VALLEY F.N.C.

Meeting: November 27th.

Speaker: Mr. J. Willis.

Subject: Wildflowers.

Excursion: November 28th. To Briagalong.

Meeting Place: The Oasis, Toongabbie.

Time: 9 a.m.

Excursion: Sunday, November 29th. Rosedale South area.

Further arrangements at November meeting.

WARRAGUL F.N.C.

Meeting: November 20th.

Speaker: Mr. C.G.L. Gooding.

Subject: Butterflies.

This will be a taped address as Mr. Gooding

is not well enough to attend in person.

Excursion: To be announced at the meeting.

CAMPOUT - AUSTRALIA DAY WEEKEND, 1971

Mt. Howitt area, travelling over Bennison Plain.

Combined outing with Bairnsdale F.N.C. Leader - Mr. A. Morrison.

More information in December issue. This is an early reminder to keep this weekend free.

CAMPOUT AT FREESTONE CREEK, BRIAGALONG - 17TH & 18TH OCTOBER, 1970From Mrs. Bon ThompsonExcursion on the Saturday led by Mr. Cane

We moved off from the camping ground at approximately 11 a.m. and travelled into the hills. There were thirteen members present and they were later joined by another five.

The beauty of the banks of golden Bush-peas with Love Creeper twining amongst them, the mauve of the Indigo and the white of the Clematis and Wonga Vines amongst the green trees could not be bettered anywhere. There were areas of Waxflowers and Boronia that just had to be photographed. The very small white variety of the Toothed Boronia was hard to associate with the large dark pink flowers of the Dutson Downs plants. Here also the Pink Boronia grows only 2 ft. high with spreading branches, while at Labertouche this same plant grows to 8 ft. high. There were many other plants that varied from the types we are used to seeing. The colour, forms and leaf sizes of the Hairy Pink-bells were amazing, while the Love Creeper, the Blue Dampiera and the Heath Pink-bells all came in white forms as well as their normal forms. Even the Purple Coral Pea had one plant with pink flowers.

We passed Bullant Ridge, but as you can imagine I kept well clear. We heard a story of how Insolvent Road got its name and visited Winkie Creek which must have been a wonderful area for ferns before the fires. However, it is recovering again, but time did not allow for us to investigate it.

On the Dargo Road, Mr. Cane named six Pomaderris for the list and Mrs. Lubcke found two tiny Greenhoods - the Midget and the Ruddy. There was even a creek for the gem-stone enthusiasts.

With 83 plants on the list and the time at 6 p.m., the excursion ended, each member proposing his own vote of thanks to Mr. Cane.

With such a day behind them and prospects of more the next, it will be imagined with what reluctance members who were unable to stay the night departed.

Perhaps the best thing of all was that throughout most of the trip we were in the area of the proposed new National Park.

CORRECTION

In the report of the excursion to Longford I recorded the Lightwood as one of the wattles flowering. However, although the trees were growing in the area the flowering time of this wattle, according to Mr. F. Rogers, is January to March. It certainly was not in bloom on the excursion.

Mrs. Bon Thompson

SPECIMEN TABLE AT MEETING ON 23RD OCTOBER, 1970

Ronald Lambert brought along a Feather-tail Glider and its baby to the meeting. These tiny animals are to find a home through the help of Mr. Roberts of the Fisheries and Wildlife Department at Traralgon. Thank you, Ronald, for the enjoyment you spread with these tiny animals.

Miss Galbraith brought along specimens of some of the flowers seen on the Campout at Freestone Creek:

Veronica perfoliata - Digger Speedwell. A blue flower with leaves joined around the stem.

Daviesia buxifolia - Box-leaf Bitter-pea - with its very shiny leaves.

Pultenaea foliosa - Small-leaf Bush-pea - with dense grey downy foliage.

Dampiera stricta - Blue Dampiera. An open blue flower with notched leaves.

Brachyloma daphnoides - Daphne Heath - with its pink and white flowers and divided leaves.

Boronia anemonifolia - Toothed Boronia. This was a dwarf form of the same species that grows at Rosedale.

Leucopogon Collina - Rough Beard-heath. This plant is characterised by its pointed leaves pointing downwards.

Pultenaea scraba - Rough Bush-pea - with brown and yellow pea flowers and triangular leaves with an indentation on apex side.

Platysace lanceolata - Shrubby Platysace. Round leaves, pink buds and white flowers in a round head.

Hibbertia calycina - Prickly Erect Guinea-flower. Small pointed leaves and bright yellow cup flowers.

Pomaderris helianthemifolia - Blunt-leaf Pomaderris. Tiny cream flowers with narrow oblong leaves.

Olearia dentata - White daisy with leaves woolly underneath. This specimen was sent to Miss Galbraith from far East Gippsland.

From Mrs. Bon Thompson

RED-CAPPED DOTTERELS

From time to time I have observed Red-capped Dotterels in the area of the effluent swamps at Maryvale. These little birds are usually seen on the marshes around the coast and brackish waters. Seeing them inland seemed strange to me. The little red-capped birds can run very quickly and are hard to get a good look at.

They appear to be living on a very fine red organism in the effluent. It has spread over a wide area and the bird life of this area is varied. I have seen Eastern Swamp-hens, Ibis, Pelicans, Cormorants, Royal Spoonbills and one solitary Egret. The last two did not stay long. On my last visit to this area I was surprised to find twenty to thirty Black-fronted Dotterels; also ten coots and one solitary Duck, probably Black. The Black-fronted Dotterels do not seem as shy as their relation the Red-Capped Dotterel.

Last year a pair of Sea Eagles were in the same area but did not stay long.

From Mr. Tom Moretti

REPORT ON EXCURSION TO STONY CREEK ON 25TH OCTOBER, 1970By Tony Moretti

As we assembled at the "Oasis", Toongabbie, we were treated to the calls of the Cuckoo and Goldfinch. One young Magpie was also trying to provide us with enjoyable sounds but was unsuccessful.

In all eight cars left Toongabbie, and en route to the Cowarr Weir we stopped to view a nest the proud owner of which was a Dabchick. On reaching the Weir we were joined by Mrs. Webb and Mrs. Hague. We searched for Reed Warblers and succeeded in finding a nest which, but for the eager eye of Mr. Thompson, might have gone unnoticed. Whilst at the Weir we also searched for the Gippsland Water Dragon but we did not sight any. However, we saw Pardelotes, Bronzewing Pigeons, a colourful Kingfisher, Golden Whistlers, a Yellow-faced Honeyeater and a Grey Fantail.

We lunched above Stony Creek, but for many people "lunch" was spread over a few hundred yards as many species of flowers and several Bearded and Spider Orchids were found. Besides these flowers several birds - the Oriole, Golden Bronze Cuckoo and the Rufus Whistler - were sighted.

After lunch we proceeded to Hooded Robin Lane where we sighted many birds - Rufus Whistler, Scarlet Robin, White-throated and Brown Treecreepers, Golden Whistler, Grey Thrush, Wedgetail Eagle, Blue Wren, Black-shouldered Kite, Buff-tail Thornbill, Jacky Winter, Dusky Wood Swallow, White-faced Heron, Crimson Rosella, Spotted and Striated Pardelotes, Grey Shrike Thrush, Silver Eye, Spotted Quail Thrush and White Cockatoos. We also sighted a Chough's nest.

As most of the group was busy watching for birds, we did not sight many flowers at ground level but did notice two snakes. A definite identification could not be established, but they were not to be tackled with.

Before departing on our many roads home all members of the group remarked on the amount of livestock about. They were classed by most of us so: Name - Mosquito; species - ferocious.

CONTINUING BIRD WATCHER'S DIARY

26th Feb., 1970. A Kingfisher was finally located in the Manna Gum. From its paler colouring it appeared to be one of the young ones. This was proved when a second bird appeared on a lower branch and twice flew down for food, taking the second catch up to the young one. This time junior did some of the hitting the food against the branch before eating. A little later it sidled along the branch toward the parent apparently begging for food. When none came it pecked at the adult which flew away, returning later with food.

4th March, 1970. Wandered around the lagoon in heavy fog without seeing or hearing Kingfishers, so moved across the road to sandbank entrance. Heard calls just as the fog was clearing but did not see the birds. Probably they are now gradually moving away.

From Mrs. J. Johnstone

MOONLIGHT CREEK VALLEYFrom Warragul F.N.C.

The Strzelecki Ranges, alias the South Gippsland Hills, when the white man arrived were found to be clothed in forests of mighty Eucalypts, with enormous Blackwoods, Myrtle Beech and more lowly but interesting plants mainly of the same botanical era.

In the deep gullies, many like large fissures in between the high rounded hills, were plants from a much earlier period in the millions of years of vegetational development - plants which, unlike the Eucalypts, never produce hybrids, having lived far beyond that stage and become fixed in never-changing forms. These make up the fern communities flourishing with a minimum of light, often never seeing the sun.

Geologically, a major fault-line running along the valleys of the Morwell River and the east branch of the Tarwin River divides the Strzeleckis into two sections - the Balook Lobe to the east, and the Narracan Lobe to the west.

The Balook Lobe is an upwarped, domed structure, the streams radiating outwards, while the Narracan Lobe is seen to be a tilted plateau of somewhat less elevation but still having the characteristically rounded hill-tops, draining mainly southwards.

The newcomers' cattle, horses and pigs could not thrive on the original vegetation, so they took on the colossal task of destroying it to give place to edible grasses and crops such as potatoes. So industrious were they that practically the whole of this vast area was turned into relatively bare farming land.

Then the rabbit and Father Time caught up with many of these youthful, enthusiastic optimists who spared not even the steepest slopes, and much of it has reverted back to, not the original giants' descendants, but plants capable of migratory colonisation - bracken, daisy-bush, cassinia by wind-blown spores and seeds, currant-bush by bird-carried seeds, and so on.

The end result is that, in the richer land areas, no sizable area remains in the western section showing the complete original ecological balance for this and future generations to study and enjoy.

We are, after all, only a part of Nature ourselves. We need to "visit our kith and kin" occasionally and forget the cares, relieve the mental strains of life.

In the whole of the Strzeleckis there are only two small National Parks, both in the east of the Balook Lobe. There is not one permanent Nature Reserve in the Narracan Lobe. The Forest Commission own a repurchased large block of ex-farmland in the richer land, but the rest mainly is not only privately owned but cleared as well.

For the purpose of a Nature Reserve of near-inviolable status, it is necessary to find, not only a piece of available land either suitably forested or alternatively capable of being botanically reconstituted, but an area in topography and accessibility suitable to the purpose.

A POTENTIAL NATIONAL PARK



- | | | | |
|------|---|------|--------------|
| 3 : | Has bushland in Moonlight Creek corner. | 61A) | A.P.M. |
| 21 : | A deep valley, heavily forested. | 28) | |
| 22 : | Bushland. | | |
| 20W: | Dr. Hayes' Avian & Fauna Sanctuary. | 19) | Clear farms. |
| 19A) | Forest Commission land. | 2) | |
| 23) | | 3A) | |

As far as the Western Strzeleckis are concerned, one point stands out as a landmark both prominent from any angle and easily accessible as a wonderful viewpoint. This is Mt. Worth, over which much discussion has ebbed and flowed as to how to do justice to its magnificence. One with some strong support was a lookout tower proposal as a memorial to the pioneers of West Gippsland.

However, by a coincidence, there exists immediately to the south of this monarch a deep valley which would be ideal for a National Park. Through it flows MOONLIGHT CREEK, one of the two streams which join to form the west branch of the Tarwin River down whose valley for eight miles runs Sargassers Road, crossing and re-crossing the river in one of the most charming of Gippsland's timbered valleys. A permanent reserve of 150 links on each side of the stream ensures its control by the public. Along the bushland section of many miles adjacent plantings by the Forest Commission are being made to improve an already delightful atmosphere.

In the Moonlight Creek valley the Forest Commission owns about 483 acres, encompassing much of the vital parts of the area, while the connection to Mt. Worth is comprised of a privately owned Avian and Fauna Sanctuary established by the late Dr. Hayes who retired in the 1930's, the Sanctuary now being heavily forested, Mountain Ash about 100 ft. high providing its distinctive "hat".

The main valley has been cleared years ago for farming but now varies from good bushland with rich fern gullies to land needing botanical reconstitution (for National Park purposes). One gully alone of the many feeding into the main stream recently yielded a count of fern species rivalling the fabulous Glen Nayook. Two rare ferns have been identified in the area. Fieldia, Orchids, and Soft Nettle vie with epiphytic ferns on the Tree Fern trunks.

Blackwood, Silver Wattle and Mountain Ash are at their best in this country, with Blanketwood, Turnipwood, Musk, Pittosporums, Mountain Correa, Austral Mulberry, Christmas Bush, Pomaderris, Panax, Lomatia, Cassinias, Daisy-bushes, Tough Riceflower, Hemp-bush, Sassafras and Zieria in profusion.

Lyrebirds and other species of birds are plentiful.

Waterfalls are numerous and further down, beside Sargassers Road, are four beauties.

The famous McDonald's Track, surveyed originally and cleared seven feet wide in the two years preceding 1862, from Morwell to near Cranbourne, goes right past Mt. Worth linking the Grand Ridge Road which, after following it for some miles, turns southwards passing along the western boundary of the Moonlight Creek valley, with Sargassers Road running down to and along the West Tarwin River.

In addition to this, there is a strong probability that the land to the south of the main valley from which come the tributaries on that side of Moonlight Creek will be planted in Mountain Ash (by A.P.M.).

In the light of the indisputable need for a National Park in this lobe of the Strzeleckis, the suitability of this valley in its physical features, accessibility and location near large numbers of people, and its relation to other tourist features, the proposition surely is a "must" in the system of our National Parks in Victoria.

A TRIP TO CENTRAL AUSTRALIA IN 1970by Miss N.T. Rossiter

Our tour to Central Australia took us first eastward to the old mining town of Arltunga and then, after returning to Alice Springs, south-west to the George Gill Ranges and King's Canyon at their western end. From there to Mt. Connor in the Ayers Rock area and then back to the Alice Springs-Port Augusta road, turning off this near Granite Downs Station to Oodnadatta and down the track past Lake Eyre to Leigh Creek and the Flinders Ranges.

All the country through which we passed was extremely dry so that there was an absence of the small ground cover plants, the blossoming of which makes this area so attractive after rain, as those who had been there in better seasons told us. However, the Inland has a charm independent of its flowering for those who love its infinite space and far horizons, its winter sunshine, cloudless skies and clear star-spangled nights.

The dryness of the atmosphere was realised when, with surprise, one saw no sign of frost on the ground or tents even though the temperature at dawn (with exceptions) varied between 27 and 30 deg. Fahrenheit and all water left in basins outside tents had acquired a layer of ice. Anyone interested in growing native plants can't help but wonder if there is any difference in damage to plants resulting from these dry freezing conditions as against the actual deposition of frost on foliage in damper climates. Perhaps someone can comment on this point.

It was good to recognise as old friends the trees and shrubs which had been identified only with difficulty or with help on our Inland trip last year, in particular the fine Ironwood trees (Acacia estrophiolata), the lovely Desert Oaks (Casuarina decasneana) and distinctive Native Poplars (Codonocarpus ootiniifolius). A few more species of the ubiquitous Salt-bushes were tabbed as belonging to genera I had not felt equal to wrestling with then - the Rhagodias with their small bright yellow or red berries, their name coming from the Greek word "rhagodes" meaning "bearing berries". There are a number of species in this genus, unlike that of Enchyleana which contains only two - Enchyleana tomentosa or Ruby Salt-bush which is very common, occurring in all states except Tasmania, and is a low shrub inclined to be procumbent, with small berry-like brightly coloured perianths resembling the Rhagodias berries, and E. microphyllum, Small Ruby Salt-bush with smaller leaves.

A species which has not been mentioned before but was often seen both east and south-west of Alice Springs is the Whitewood (Atalya hemiglauca) a small to medium sized tree with light grey-green foliage, which from a distance could be mistaken for a fine leaved Eucalypt. Stands of the suckers may cover several acres. I always identified it by the "double line" forming the midrib of the leaf. Its near relative, Bullock Bush (Heterodendrum olcifolium), often called a "different looking Whitewood", may be distinguished by its fruit, a one to four lobed capsule with each lobe containing a black seed with a large red aril or attachment. The fruit of the Whitewood is winged like that of the Sycamore to which it is related.

Few of the wattles were flowering; one exception, Acacia kempeana or Witchetty Bush, was often seen in bloom. A shrub with greyish, oblong leaves and golden catkins up to 1 in. long which obtained its common name because the Aborigines eat a grub found in the roots. Because it is grazed by cattle in times of drought many of the plants are being killed. An Acacia which is common over a very wide area is a large shrub with broadly linear leaves about 2 in. long with a very small, very sharp hooked point. It has small, golden, globular flower heads, a curly pod constricted between the seeds which are black with a folded funicle, and is thought to be Acacia leptopetala.

One of the commonest Eucalypts seen in Central Australia and adjacent parts of South Australia, besides the Ghost Gums (Euc. papuana) and the inland variety of the River Red Gums, was Euc. gamophylla or Blue Mallee, distinguished by its mallee growth and bluish opposite leaves joined around the stem. "Gamophylla" means "joined leaves". Euc. terminalis, a Woody-fruited Bloodwood, seen last year over a wide area right through the Northern Territory and the "top half" of Western Australia, was also seen occasionally in the Centre. The only other Eucalypt identified in the Central Australia area was Euc. oxymitra, a Mallee with thick, leathery leaves and a red almost globular fruit over 1 cm. across with a broad rim and exserted valves.

Again many Eremophilas were seen, although few had more than one or two flowers, the most common being the rather sad looking Eremophila freelingii, its limp, drooping leaves and dejected appearance making it easy to identify even without seeing its lilac-blue flowers.

King's Canyon is said to be one of the most beautiful gorges in Australia. It is still sufficiently off the beaten track to have escaped the accumulation of tins, papers and garbage which seems inevitably to follow the flow of tourists. One day was spent walking up King's Creek to the head of the gorge and another climbing out of the valley to view the gorge from above. Seen from below, the bright orange vertical walls are startling against the bright blue background of the sky, and here and there the dazzling white trunks and gnarled twisted branches of inland gums, clinging precariously, make a picture worth coming a thousand miles to see.

Above the gorge is a sandstone plateau with a multitude of small rocky hillocks of various shapes and sizes looking rather like one's idea of the surface of the moon. Here and there among the sandstone knolls are lovely little oases with Porcupine Grass, Macrozamia Palms, Ghost and Inland Red-gums and Native Pines, some of the latter of grotesque shape and looking like outsize bonsai trees. Here we found Duboisia hopwoodii, a member of the Solanum family, a straggling shrub with a small, white, bell-shaped flower streaked with purple inside. Its leaves, which contain nicotine, are called by the Aborigines "pituri" or "pitcheri" and are chewed by them to overcome thirst and fatigue. Another interest^{ing} discovery was the low growing Baeckea polystemona, said only to grow in this area.

From King's Canyon we travelled south to Angus Downs Station and then south-west on the Ayers Rock road, leaving it 50 miles from the Rock to visit Mt. Connor, a single flat top mountain of 2805 ft. rising suddenly out of the plains. The chief delight here was watching the changing colours of this isolated mountain in the rays of the setting sun. We were fortunate to have a few clouds on the horizon so that the panorama of colour was really magnificent.

From Mt. Connor the route was south-east again to Victory Downs Station. At first the vegetation was varied, with several Mallee Eucalypts, many Desert Oaks, Native Poplars and a variety of shrubs including the lovely Grevillea juncifolia, Desert Grevillea, with its long plumes of rich orange flowers. But as we proceeded towards the lower rainfall area (from 8 in. to 6 in. and less) the vegetation became sparser until, at Victory Downs Station just north of the border, the shrubs and trees had disappeared and the aspect was rather desolate. The colour of the sand had gradually changed from warm red to a pale creamy grey, making one realise how much the red soil contributes to the attraction of the Centre. And now homeward down the track southward via Oodnadatta and the Flinders Ranges.

LIST OF PLANTS FROM MISS GALBRAITH'S TALK - 26/6/70 (CONCLUDED)

ROCK GARDEN

Wahlenbergia sp.	Bluebell
Prostanthera aspalathoides	Scarlet Mint Bush
Cheiranthra liniaris	Finger Flower
Bulbine bulbosa	Bulbine Lily
Sowerbaea juncea	Rush Lily
Anigomanthos pulcherrima	Kangaroo Paw - Golden
" manglesii	" " - Green
Astroloma pinifolia	Pine Heath
" humifusum	Cranberry Heath
Leschenaultia formosa	Yellow to purple flowers
Scaevola hookeri	Fanflower
Velleia montana	Mountain velleia
Hibbertia procumbens	Spreading Guinea-flower
Isotoma fluviatilis	Swamp Isotome
Scleranthus biflorus	Cushion Bush

SPECIALS Not easy but worth an effort.

Rhododendron lochae	Native Rhododendron
Leschenaultia macrantha	Wreath Leschenaultia
Ourisia	
Viola betonicifolia	Purple Violet
Dendrobium kingianum	Pink Rock Orchid
Caltha introloba	Alpine Marsh-marigold
Cephalotus follicularis	Pitcher Plant

EXTRACTS FROM L.V.F.N.C. EXECUTIVE MEETING
held at the home of Mr. and Mrs. Lubcke on 27/10/70

ACTING EDITOR: Notice was given by Mrs. L. Padfield that she will be travelling abroad during 1971 from May to September. If any member can help with the editing of the Naturalist, please contact the Executive.

ROSEDALE RESERVE: A letter will be sent to the Lands Department asking that the area of 2000 acres at Holey Plain be declared a reserve.

LIBRARY: A rubber stamp is to be ordered so that books can be suitably marked. The book, "Between Wodjil and Tor", has been bought for the Library.

CONSERVATION COUNCIL OF VICTORIA: Mr. Dewar Goode visited the area recently and interviewed various people regarding Pollution, National Parks and the Baw Baw road. We await further information about his visit. It is pleasing to know that the Council concerns itself with these important matters. This Club is a member of the Council.

FERNS AND FLOWERS OF WILSON'S PROMONTORY: This booklet, published by the National Parks Authority, is available from our Treasurer, price 25 cents.

SUPPER ROSTER - 27TH NOV.: Carol Belgraver and friend.

CAMPOUT - AUSTRALIA DAY WEEKEND, 1971: This was discussed and all members are invited to take part in this outing. These trips are always enjoyed by the people attending them.

PROGRAMME - 1971: It was decided that the subject of the next Executive Meeting will be next year's meetings and excursions. All members are asked to suggest speakers and/or subjects to the Executive.

NEXT EXECUTIVE MEETING: To be held on 1st December at Yallourn State School to enable members to attend.

MAMMAL REMAINS

By Mrs. Ellen Lyndon

Under the above heading I recorded, in the Latrobe Valley Naturalist, No.70, June 1970, the finding of a dead specimen of a Marsupial Mouse or Phascogale. It was seen by some of our members on the Anzac Day excursion to Venus Bay and was collected a week later.

Mr. N.A. Wakefield has identified the bones as those of Antechinus minimus, the Little Tasmanian Marsupial Mouse.

Until 1962, when Mr. Wakefield caught a couple of these little animals east of Portland, A. minimus was known only from Tasmania and nearby islands. Of the Venus Bay specimen he said, "this is a valuable addition to our knowledge of the mainland distribution of this species. It has been recorded from Wilson's Promontory and for Glennie Island, but that is all for the whole of Eastern Victoria". It seems, therefore, that our find was the third record for Gippsland.

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563

Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

Acting Honorary Editor (Mrs. L. Padfield)
42 Strzelecki Road,
YALLOURN. 3838 Tel. Yallourn 622581

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DECEMBER 1970

ISSUE No. 84.



Latrobe Valley Naturalist

Protect and enjoy

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REGISTERED AT THE GENERAL POST OFFICE MELBOURNE FOR TRANSMISSION BY POST AS A PERIODICAL

COMING EVENTS

LATROBE VALLEY F.N.C.

Meeting: January 22nd.
Film night.

Excursion: January 30th - February 1st.
Weekend to Mt. Howitt with Bairnsdale Club.

Leader: Mr. A. Morrison.

Further details on last page.

Dear Fellow Naturalists,

This is the last issue for 1970, and on behalf of the Latrobe Valley Field Naturalists Club we wish everyone the Compliments of the Season.

Also, people who have contributed to the Naturalist, I thank you and look forward to your support during 1971.

The editorial staff have all done a marvellous job since our Editor, Mr. J. Peterson, was no longer able to carry on with this most important part of our Club.

A reminder to our Clubs wishing to have details of meetings published - please have your copy in early. Perhaps that could be a New Year resolution.

L.P.

VICTORIAN BUTTERFLIES

Address by Mr. John Landy on 23/10/70

From Mrs. Bon Thompson

Mr. Landy confined his talk to Victorian butterflies of which there are over 100 species. The main area of interest is the coastal areas and East Gippsland which together have 50% of the species. Other species are endemic to alpine areas, others to the inland areas of the Little and Big Desert. There are a few at Kiata and Wyperfeld National Parks but they are very special. The number of Victorian species has increased over the last few years through the efforts of a beekeeper in Cann River who has discovered 15 species not thought to exist south of Sydney.

Butterflies can be distinguished from moths by their antennae which are clubbed (but a few moths have these also) and by the fact that they fly during daylight hours (some moths also). The correct identification is that moths have a frenulum for locking the fore-wings and back-wings together in flight. All butterflies (except one species) do not have frenulum. There are approximately 350 species of butterflies, while there are 13 to 14 thousand species of moths.

The antennae of butterflies are well developed and are a highly sensitive organ of taste, smell and orientation. The eye is a very compound organ composed of many single lenses, 8 to 10 thousand, and each facet ends at the top in an individual nerve of the optical system. This gives very good close vision, but at a distance of 3 ft. or so objects are just a blur. The eye is tremendously sensitive to movements. The legs are hairy and sometimes have appendages or hooks to enable the insect to hang on by only one leg if necessary. The proboscis is the specific mouth part used to obtain the nectar. Mr. Landy had slides of butterflies on flowers with their proboscis extended into the flowers.

Swallowtails are the most advanced species of butterflies, often with a tail-like projection to the hindwing. From a slit in the thorax the larva, when disturbed, can project a curious fleshy forked organ which emits an

obnoxious odour as a protective mechanism. Mr. Landy showed slides of Macleay's Swallowtail, Chequered Swallowtail, Mildura Swallowtail and others.

Skippers are the lowest form of butterflies, with about 30 species. They get their name from their bouncy flight. They are mostly small and the larvae usually feed on grass. The larvae of the Showy Skipper feed on Brick-maker's Sedge from which they can be collected and bred. Other species feed on Wire Grass. One Skipper shown on the slides was thought to be rare in Victoria until 1947 when members of the Melbourne Museum went up to the Alps at the right time of year and found them very plentiful. Another species was only found in the Little Desert in Victoria in 1945. It was previously known from the south of Perth and a desert in South Australia. Yet in these three areas these butterflies are plentiful. The colour of Skippers is from the scales on the wings; most of the scales are laid one on top of another, giving a varying effect, and are often hairy. They also have hairs on the outsides of the wings. The larvae of one Skipper feed on a special Gahnia in the Blue Mountains and the species was very rare in Victoria. When this Gahnia was identified in the Grampians the same Skipper species was also found; and wherever else the Gahnia has been found so have the Skippers.

Sometimes it is difficult to understand the reasons for the distribution of a species. One species that feeds on a common Poa has been found above 4,000 ft. at Mt. Timbertop and is quite common there. However, it is only known from two other areas from all the mountains over 4,000 ft. in Victoria, and these are Mt. Hotham and on one side of Mt. Buffalo. It is easy to see the fascination butterflies must have for amateur entomologists.

Mr. Landy then showed slides of the Whites. These butterflies are mainly white or yellow and black with beautiful blotches of colour. In all the species of Whites that Mr. Landy showed the larvae fed on Mistletoe. 1950 was a special year for Wood Whites, but mostly they are hard to find and are susceptible to a virus which causes the pupa to liquefy.

Blues. There are 33 species of these butterflies. Their larvae all have anchors and secrete girdles to hold the pupa on the back of the leaves. Mr. Landy showed a series of slides on the pupation of a rare species of Blue. Some Blues are brown and are characterised by red patterns with borders. In one species shown, the male was brown with red blotches with white edges, but the female was a beautiful yellow with red blotches without borders. Mr. Landy even had slides of a hybrid species that has been almost exterminated by over-collecting.

Blues are nearly always associated with ants. At the rear of the larva are secretory glands that secrete a sugary solution very palatable to the ants. In return the ants protect the larvae from wasps and care for them. The ants can stimulate the larvae by stroking them near the glands. Different Blues are associated with different ants, and when the ants are attending the larvae they are much more ferocious and aggressive than usual, even the meat and sugar ants. The ants even look after the pupa although there is no secretion at this stage. It is not known how the Blue butterflies know which Mistletoe the ants' nests are near, nor at what stage of development from the egg the ants start to attend the larvae. In one species the larvae live in rotting wood and are very well camouflaged, even

to a graining on the eye. In one species of Blue the larvae even eat the ant larvae. Hairstreak butterflies are attended by small black ants on Blackwood trees but are hard to find as they may be only on one tree in a stand of 200 or 300 trees. The iridescent colours on the tops of the wings of Blues is not caused by pigment but by a colour defraction effect; it is not a chemical but a physical effect.

The last group was the Browns. The brown colouring is a camouflage because many of them feed on grass. One suggestion as to the use of the "eye" on the wings is that it may be a diversion to attacking birds and the insect could still complete its life cycle even with pieces missing from the wings. Some of the Browns are rare throughout Victoria but relatively common in special areas in East Gippsland. One Brown is usually found at 3,000 ft., but as usual there is an exception, as it is also found at sea level in the Otways. Browns are usually gregarious at night, although they fly singly during the day. They generally settle on grass about dusk. Some live mainly between 3,000 and 4,000 ft.

Mr. Landy finished the evening with a group of unusual and interesting slides. One showed a butterfly collecting sugary secretion from Leafhoppers - not a usual occurrence. Another showed the Painted Lady, which is one of the few butterflies that occur all round the world. He showed how some butterflies have evolved similarly to the Wanderer in order to receive protection from birds, as Wanderers are unpalatable to birds.

Mr. Landy also showed some forms of Gynan Dromorphism, which is when the butterflies have two male and two female wings although the insect itself is only one sex. Mostly gynan dromorphism occurs with the two similar wings on the same side, but Mr. Landy even had a specimen of a cross gynan dromorph with one upper and one opposite lower male wings and the same with the female wings.

Finally, Mr. Landy showed a very detailed series of the pupation of the larva of the Wanderer butterfly, as it changed into a pupa, and later as it emerged as a butterfly from the pupal case.

The applause expressed the appreciation of the audience to a very fine talk.

N.B. As I have not been able to have this report checked by an authority, I cannot claim it to be accurate but only a sincere effort to record a subject of which I know nothing. B.T.

LABERTOUCHE REVISITEDFrom Mrs. L. Padfield

Members of the L.V.F.N.C. were pleased to join with the Native Plants Preservation Society on their excursion to Labertouche on 7th November. The leader was Mr. J. Brooks of Warragul F.N.C. with 22 cars to follow him.

We travelled along the road to the "power lines" where we could see many species of native plants. As this area had been "bulldozed" and was going to be cleared again, we all felt rather depressed as another area is lost to progress. Along the roadside Leptospermum ericoides was a mass of white flowers. Going higher into the hills we then saw beautiful masses of Boronia meulleri with all shades of pink to white flowers in the gullies.

Pultenea mollis was overhanging the road for some of the drive as we headed for a lunching place, which was at the junction of the Powelltown and Neerim roads. Here we were able to meet and talk with members of our sister clubs. Mr. Bleakley, President of N.P.P.S. thanked Mr. Brooks for leading the excursion.

Travelling back there were many stops to observe the beautiful flora in that area. The Grevillea barkleyana, with delicate pink toothbrushes, was a highlight. Southern Sassafras (Atherosperma moschatum) and Privet Mock-olive (Notetaea ligustrina) were together in the gullies. Later we saw Sandfly Zieria (Zieria smithii) which one of the Warragul members will think of as Bullant Zieria!! Light rain began to fall and several cars had already left for home, so reluctantly the rest of us headed homewards, having had a most enjoyable day.

A detailed list of plants in the area is being compiled by Mr. J. Brooks.

SPECIMEN TABLE AT MEETING ON 27TH NOVEMBER, 1970

Miss J. Galbraith:

Callistemon citrinis - Crimson Bottlebrush. Two colour forms.
Callistemon pallidus - Clearview Christmas. Form with anthers.

Mrs. E. Lyndon: (Park grown)

Eucalyptus crasis - Southern Cross Silver Mallee.

Callistemon species. Two rich reds.

Melaleuca armillaris. White.

Melaleuca decussata. Streaky mauve.

Leptospermum - "Red Damask". Hybrid?

Leptospermum rotundifolium. Lovely apple-blossom flowers.

Grevillea aquifolium - Prickly Grevillea.

Grevillea buxifolia. Grey spider flower.

Pimelia ferruginea. Pink.

Olearia myrsinoides. Worthy garden subject.

Westringia rigida. Mauve, like a mint-bush.

Banksia canei. In seed.

Two used bird's nests - Golden Whistler and Yellow Robin.

Two types of galls - One berry-like on Acacia stricta; other on Eucalypts.

WHERE DO BUSH FLIES GO TO IN WINTER?From Mr. Jim Peterson

I wonder how many times we have asked this question, stirring up quite a good argument but seldom reaching a solution. Four members of the C.S.I.R.O. have also been intrigued by the same question and have spent the past two years seeking an answer. Among the facts brought to light was that bush flies only completely disappeared in the cooler areas and then only during the winter, reappearing each year at about the same time. The time they reappeared was later the further south the investigation was carried out. It was found also that the first flies to appear in an area were young flies. This, plus other evidence, indicates that there was a migration of the northern flies southward as the weather in the south improved. Records have shown flies (or their progeny) moving from as far as Queensland to Canberra in 7 weeks.

More information on this project is available in the June issue of "Australian Natural History", produced quarterly by the Australian Museum, Sydney.

CRYPTANDRA AT ROSEDALEFrom Mrs. Bon Thompson

On August 23rd, while compiling part of a census of the Holey Hill Trig Point area at Rosedale, we found a low heath-like plant flowering. On closer inspection this plant was identified, tentatively, as Cryptandra tomentosa. It was a Cryptandra because of its characteristic hooded stamens. The small bell is formed by the calyx and the petals are the hoods over the stamens. The narrow leaves, approximately 8 mm long, were very hairy on both sides, dark green above and pale beneath. The stems also were very hairy.

As Cryptandra tomentosa grows in Western Victoria, the specimen was sent to the Herbarium for positive identification. Mr. Willis wrote to Miss Galbraith confirming the identification and stated that "this was an isolated and remarkable record for the Cryptandra, our previous easternmost occurrence being at Pt. Lonsdale and on the Brisbane Ranges. This occurrence of a typical western (and chiefly Mallee) species in South Gippsland is paralleled by the appearance of Zieria veronicea in the Dutson Downs area".

Let us hope we succeed in getting a decent area reserved around this Trig Point.

ALPINE FLOWERS

Here in the high domain of flowers
So lately hushed with snow
The daisies mark the shining hours
And everlastings glow.
The upland bogs are starred with white
Unnumbered loveliness,
And gold and blue and silver light
The mountain's quietness.

J.G.

LAKE TYERSBy Mr. V.N. Jernakov

Lake Tyers is situated in Tambo County, Victoria, about 210 miles to the east of Melbourne. It is named after Charles James Tyers, one-time Crown Lands Commissioner of Victoria. Lake Tyers is one of the most picturesque and beautiful of the Gippsland lakes. Its appearance is that of a drowned river valley.

The area of the lake is about six square miles, and it has numerous arms. In its southern part is the small Mud Island. Lake Tyers has an average depth of 10 ft. The depth fluctuates from 2 to 20 ft. Four miles south of Nowa Nowa is a deep cavity known as Devil's Hole. The bottom of the lake is clayish, but sometimes rocks can be found. In some places the lake is covered by weeds. Lake Tyers does not connect with the sea normally, but at certain times, when there are heavy rains in the region, the lake joins with the sea. The water in the lake is clear and brackish.

Lake Tyers abounds with many different species of fish. According to Mr. S. Roberts, who has lived in this area for many years, the following fish are found in the lake:

1. <u>Acanthopagrus australis</u>	Black bream
2. <u>Hemirhamphus australis</u>	Sea garfish
3. <u>Nelusetta</u> spp.	Leatherjacket
4. <u>Girella tricuspidata</u>	Luderick
5. <u>Percalates colonorum</u>	Estuary perch
6. <u>Myxus elongatus</u>	Sand mullet
7. <u>Mugil cephalus</u>	Sea mullet
8. <u>Aldrichetta forsteri</u>	Yellow-eye mullet
9. <u>Chrysophrys guttulatus</u>	Snapper
10. <u>Usacaranx georgianus</u>	Silver trevally
11. <u>Platycephalus bassenias</u>	Sand flathead
12. <u>Pseudorhombus arsius</u>	Large-toothed flounder
13. <u>Pomatomus pedica</u>	Tailor (Skipjack)

Among the Prawns are found Eastern King Prawn (Penaeus plebejus) and School Prawn (Metapenaeus macleayi).

All fish are caught in large quantities. Fish are netted from 1st April to 30th August each year and the lake is open for angling all the year round.

Among the waterfowl can be mentioned Black Swan (Cygnus artatus), Black Duck (Anas superciliosa), Whistling Tree Duck (Dendrocygna spp.).

The earliest tourist launches on Lake Tyers were operating about 1906. According to Mr. S. Roberts the original service was provided by the late Mr. Roberts & Bros., pioneers of tourism in the region. A steam launch was provided by Mr. Roberts. Also motor boats and boats run from Lake Tyers to Nowa Nowa.

It is interesting to note that previously a small ship made a regular trip from Lakes Entrance to Orbest and another from Orbest to Lakes Entrance. Lake Tyers estuary was their meeting place.

An Aboriginal Reserve of 4,000 acres, the biggest reserve in Victoria, is situated on the shores of Lake Tyers. This reserve was established in

1862 as a Mission Station. In 1885 there were 112 Aborigines. At present there are about 85 Aborigines in residence, all being at Lake Tyers Aboriginal Station itself and none elsewhere in the reserve.

On the eastern shore of the lake, on a 52 acre farm is situated Lake Tyers Homestead, which was built more than one hundred years ago. Previously this building was used as post office, public bar and other public institutions. Now this 40-room house belongs to four Melbourne doctors. Near the house are planted Queensland Pine and Pine (Pinus radiata).

ARE WE ALLOWED TO BREAK THE LAW?

From Mr. Bart Sterkenburg

Some years ago I wrote a little article about the Lacy Wedge Fern found in rugged bush north-west of Moe. We marked several trees so it would be possible to find our ferns again. A big bush fire the next year destroyed all our direction signs but one. A tree with an arrow on it was badly scorched but still standing. Nevertheless we had the misfortune not to be able to find our ferns again. On another trip we found that an axeman must have been along and chopped this last guide away.

Fortunately this year the spot was found again and 13 different plants were recorded. There is, however, a possibility that these plants will be lost as a prospector's claim is over that area. I took three plants and a lot of soil, put them in large pots, and now after 4 months they are doing fine and making new fronds. Would it be advisable to transplant the remaining ferns to a safe place and break the law, or take the risk that they will be destroyed in their natural surroundings? I put this difficult question to you and hope the experts will advise me in this matter.

A suggestion from a member was to obtain a permit from the Forest Commission to remove plants in danger. Ed.

ANOTHER PLOVER STORY

From Mr. Tom Moretti

In my recent article about nesting Plover there was a doubt about the hatching time; but this note is direct from the household of the same pair. This pair of Plover obligingly nested again in the same spot in the same nest three weeks later. Now the story is: on 16th August, 1970 one egg was laid; then one rest day; then one egg each day of 18th, 19th and 20th August; then the period of waiting and watching for 28 days. On 17th September two eggs were chipped; on the 18th three eggs hatched and the fourth was chipped, but the birds stayed with the fourth egg. On 19th September father walked the three young away, and at 10 a.m. on the 19th number four hatched and mother did a lot of coaxing for about four hours and finally, at 3 p.m., all had disappeared into the grass paddock.

The only noticeable difference that I saw was that the eggs burst lengthways instead of around like other eggs do; but this may have been a coincidence, and the two eggs that were left from the first hatch were infertile.

BOG PLANTS ON FORLORN HOPE PLAINFrom Mr. Keith Rogers

A visit to Forlorn Hope Plain, between the Buchan and Reedy Rivers, on 26th January of this year, was described by Mr. Ern Homann in the Lalrobo Valley Naturalist for February. Reference was made to the creek that winds across the plain and the nearby mounds of Richea (R. continentis).

This distinctive Heath is usually associated with alpine bogs and sphagnum moss-beds. In such situations there is nearly always an interesting assortment of smaller water loving plants as well as the heaths. Alongside Forlorn Hope Creek, as it meanders across the plain, are many shallow depressions that are usually filled with water for a good part of the year, and these hollows are carpeted with various creeping mud-plants.

The day we were there one party was intent on photographing Orchids, another the Heaths and the general floral display, whilst I was content to examine each small plant in the bogs near the creek crossing, just in case of something new turning up - and isn't that always the urge? Well, all there was to show for much mud crawling was a handful of black ooze pressed around a few bog plants that we took back to camp.

In due course, Mr. Alan Morrison kindly took my messy collection to Mr. J.H. Willis at the Herbarium. Whilst the bunch included such plants as Myriophyllum pedunculatum, Crassula helmsii, and Oreomyrrhis ciliata, another turned out to be quite a surprise. This was a Mud-mat that Mr. Willis thought most nearly resembled Glossostigma drummondii of the drier inland part of this State. It was remarkable to find it growing in an alpine bog at 4,000 ft. He also remarked that this plant had much shorter flowering stalks than the typical G. drummondii.

More recently, Mr. Willis sent a message to say that this Mud-mat has turned out to be G. spathulatum, a species not previously recorded for Victoria.

Incidentally, the Mud-mat that is common on the Snowy River near here is G. elatinoides, the corolla of which has four lobes whilst G. spathulatum has three.

As these three species all have spathulate leaves and very small flowers, they are not easy for this complete amateur to separate. Indeed I even thought, on finding the Forlorn Hope plant, that it may have been Limosella australis, a plant that does occur there.

This all goes to show how dependant we untrained plant observers are on the expert help of our botanists. Having since searched the whole of Forlorn Hope Plain for further colonies of G. spathulatum, it appears so far to be only in the one patch there.

Now that one knows what to look for it will be interesting to see if this species, new to Victoria, can be found in other alpine bogs.

NOTES FROM SALE F.N.C.From Mrs. Enid Newnham

Concerning recent past activities of our Club: At our November meeting we were addressed by Mr. Cane of Maffra and his subject was "Acacias". As he was unable to lead our excursion on the following Sunday, Mr. Peter Turner took over and we went in search of the Mt. Useful area for a patch of the Acacia Howettii which, I understand, is not very often seen growing in areas other than Tarra Valley. Unfortunately we were not successful in finding it, owing to an error in our instructions.

Prior to the recent elections, at the request of the "Save the Kangaroo" Committee some of our members distributed pamphlets giving information about Dr. Birley, who was standing for Conservation. A donation was also given on behalf of the Club by one of our members to help with the printing of the "Save the Kangaroo" car stickers. We are hoping to receive more of these as there seems to be quite a demand for them amongst the general public as well as our members.

We are hoping to have Mrs. J. Johnstone of Tyers to speak to us at our December meeting; then the Club goes into recess until January next year.

I would like to take this opportunity, on behalf of the Sale Club members, to wish you and all Field Nats. a very happy Christmas and the best of everything in the New Year.

NATIONAL PARKS AUTHORITY - RECENT PRESS RELEASES

An additional administrative position will be established within the office of the National Parks Authority, according to the Minister of State Development, Mr. Vance Dickie.

The new position had been approved by the Government as a move towards greater park protection and improved management. The new officer will help to organise protection and enforcement activities and will assist to deal with the greater amount of administrative work arising from the establishment of new parks in recent years.

Fire Protection Officer for National Parks. For the first time, a fire protection officer will be appointed for Victorian National Parks, announced by the Minister of State Development, Mr. Vance Dickie.

The new position had been approved by the Government as the first step towards an expansion of protection activities in National Parks.

A senior and experienced officer will be appointed to work full-time on fire protection planning and to undertake fire fighting operations as necessary.

Until now these duties have been carried out on a part-time basis by various members of the National Parks Authority's scientific staff.

The qualifications and salaries for these positions were being examined by the Public Service Board.

NOTES FROM L.V.F.N.C. EXECUTIVE MEETING
held at Yallourn State School on 1/12/70

PROGRAMME - 1971: This was discussed at length. Speakers will be asked to visit the Club. We hope the programme will be published early in 1971.

TRANSPORT FOR EXCURSIONS: It was felt that someone should be responsible for arranging transport for people wishing to attend excursions. Mrs. H. Crane has agreed to do this. Phone: Yallourn 622215.

MCDONALD'S TRACK AREA: This area is being included in road reconstruction in the Narracan Shire. It was decided to write to Narracan Shire to ask that as much as possible of roadside vegetation be undisturbed.

BOOK FOR LIBRARY: Mr. J. Peterson has donated "Life and death in the insect world".

NEXT EXECUTIVE MEETING: 9th February, 1971 at the home of Mrs. L. Padfield, 42 Strzelecki Road, Yallourn.

AUSTRALIA DAY WEEKEND CAMPOUT - 1971
(30th, 31st January, 1st February)

Mr. A. Morrison, the leader for the weekend, has advised of details for the campout. The camp will most likely be at Howitt Hut, which is approximately 48 miles from Licola along the Tamboritha road.

The hut is not suitable for sleeping in but has a large fireplace, and this would be useful in the event of heavy rain. There are large sheltered grassy areas around the hut very suitable for camping. Water is available at the hut but will require boiling before use. There is also a small stream some distance away.

The road is good, well graded and accessible for conventional vehicles. It is sealed from Heyfield to Licola and approximately 8 miles beyond. From this point it is a good gravel road, fairly winding, mostly climbing and occasionally needing 2nd gear.

Mr. Morrison will be going up a day earlier to mark the turn in.

We look forward to seeing as many of our members as are able to come on this trip.

Latrobe Valley Naturalist

Details of contributing Clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S. Belgraver,
179 Lloyd Street,
Moe. 3825

Meetings commence at 7.30 p.m. and are held at the
Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Miss D. Johnson,
Box 302,
Sale. 3850 Tel. Sale 3282

Meetings commence at 8.00 p.m. and are held at the
C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mrs. M. Wood,
13 Lafayette Street,
Traralgon. 3844 Tel. T'gon. 72117

Meetings commence at 8.00 p.m. and are held at the
Grey St. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J. Brooks,
Nobel Street,
Warragul. 3820 Tel. W'gul. 21563

Meetings commence at 8.00 p.m. and are held at the
Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of
the Latrobe Valley Field Naturalists' Club. Contributions on any aspect
or branch of natural history are invited from members of all Clubs and
should be addressed to:

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